UNIVERSITY OF LONDON

UNIVERSITY COLLEGE ANNUAL REPORT 1961-1962

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LONDON

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OFFICERS OF THE COLLEGE

CHAIRMAN OF THE COLLEGE COMMITTEE

THE RIGHT HON. LORD COHEN, P.C.

VICE-CHAIRMAN OF THE COLLEGE COMMITTEE

THE RIGHT HON. LORD STRANG,
G.C.B., G.C.M.G., M.B.E., B.A., LL.D.

TREASURER

SIR BERNARD WALEY-COHEN, BT, LL.D.

PROVOST

SIR IFOR EVANS, D.LIT.

SECRETARY

E. A. L. GUETERBOCK, M.A.

REPORT OF THE CHAIRMAN OF THE COLLEGE COMMITTEE AND THE PROVOST

Viewed in the broadest terms, the position of the College remains as outlined in previous Reports, and the most critical requirement standing between us and fulfilment of the major contribution that we can make to higher education and research, is the provision of adequate buildings in our own rectangle and in the immediate neighbourhood; as a necessary corollary there is the provision of adequate living space in convenient areas for our students.

The College received in May 1962 through the Court of the University an announcement of the recurrent grants for the forthcoming quinquennium. So much comment has been made in the national press on their inadequacy that the issue need not be elaborated here. It is now known that the University Grants Committee was itself profoundly dissatisfied. Why from a national point of view it was necessary so to discourage and disrupt research work, valuable in the national interest, still remains inexplicable. We would only record the resilience of University College under these restricting conditions.

More frustrating than the inadequacy of the grants for current expenditure was the failure to meet what we had understood to be firm commitments on the capital account. Fortunately, private benefactors and the great foundations have been more far-sighted than the Government in these matters. We mentioned in our previous report a gift of £250,000 from an anonymous donor for the construction of a hall of residence in Fitzroy Street. The arrangements for this project are proceeding smoothly. Lord Marks has added to his previous benefactions a gift of £100,000 towards the cost of the Central Collegiate Building. Mr Harold Samuel has given £100,000 to create a capital fund to be used on building projects as the College Committee may decide. The Wellcome Trust has made available £40,000 for animal accommodation for the Medical Sciences Faculty. In order to provide more space for the Department of Eugenics, Biometry and Genetics, including the Galton Laboratory, the College has now acquired the property in Euston Buildings for the development of which the Wolfson Foundation and the Medical Research Council have promised £200,000 and £40,000 respectively.

All these are notable contributions and they have been preceded by similar generous donations in previous years. It may, however, be questioned how long private benefaction can be expected to continue in view of governmental failure to produce the funds necessary to fulfil its own declared policy on university education. Some consolation may be gained from the fact that the Government has undertaken to look again at the needs of universities in two years' time. Meanwhile University College London is making the maximum use of the resources available. A full list of benefactions will be found in Appendix XIII.

As was stated in the previous report the College has come to the conclusion that the very important contribution that it can make to higher education and research needs to be better known and that its long-term programme should be presented in all interested quarters as a comprehensive document. To this end the College set up, under Lord Strang's chairmanship, a Development Council consisting of some of its own members but having, in addition, the benefit of the advice of Sir Edwin Herbert. The Development Council has now been able to survey all the major problems and has prepared its preliminary report. It proposes that the maximum utilisation of the existing site must be a first consideration. For this purpose it has suggested to the Court of the University that the time has come for a detailed examination of Sir Leslie Martin's scheme for the planning of the College Rectangle. The Court has expressed its general approval of this procedure. Only when this study is completed can the Development Council adequately assess what land outside the Rectangle is necessary.

The first two stages of the Engineering Building on the Torrington Place frontage, towards which some £400,000 was contributed by industry, were completed in time for their full use during the session under review. Designed by Professor Corfiato, they make an impressive addition to the College buildings. Many problems of accommodation still face the Engineering Faculty but a notable stage in development has been completed, which has permitted the Faculty to accept 30 per cent more undergraduate students than in previous years. Progress is being continued on the third stage of the Engineering Building.

On the Gower Street frontage the final stage of the Biological Sciences Block, which provides the long-awaited accommodation for the Department of Botany, will be ready for occupation in 1963.

Progress has been made in the planning of the fourth stage of the Engineering Building and of the first stage of the Central Collegiate

Building. Planning also continues for the new Chemistry Building on the east side of Gordon Street, the first stage of which it is hoped will commence in 1965.

Among the amenities added to the College, one of the most charming is the small Rex Whistler dining room, which can be used by all members of the College. Through a grant from Messrs Rothmans the College was able to re-erect in this room murals by Rex Whistler which were on the walls of a house in Gower Street, once the residence of Lady Diana Cooper and then scheduled for demolition. The Friends of University College made available grants for furniture and decorations, and the whole room is one of unusual distinction. The architect was Mr R. C. White-Cooper and Lady Holford advised on the decorations.

The provision of student accommodation remains one of our major concerns. The degree of our success in solving the problem within the next decade will affect the whole future of university education in London. The present difficulties of accommodation are emphasised this session by the fact that of the 3,119 full-time students no fewer than 1,708 have to live in lodgings often situated a considerable distance from the College. Those living at home have now dropped to 801 and, in spite of the opening of certain new University halls of residence, only 610 full-time students found places in the halls provided. Reference has already been made to the anonymous donation of £250,000 for the erection of a hall of residence for men on the site now available on the corner of Fitzroy Street and Maple Street. This project is proceeding within the schedule originally planned. There is now every prospect that an immediately neighbouring site will soon become available for development as a women's hall of residence; unfortunately the necessary funds for the building cannot be spared out of the inadequate Government capital grants announced for the next few years.

Eight houses on the east side of Gordon Street, due for demolition in 1965 to make way for the new Chemistry Building, have been adapted for temporary use as three separate blocks of residential accommodation for students. The success of these student houses, in which ninety-one men students have enjoyed the measure of freedom involved in looking after themselves and have shown a distinct sense of responsibility as tenants, has ensured the continuation of the experiment and the admission of women students to residence in one block in 1962–63. It has also encouraged the hope that more of this type of accommodation may be acquired by the College as opportunities arise. The College attaches much importance to this experi-

ment and we would recall that it was made possible only through a loan of £12,500 for furniture from the Nuffield Foundation.

Statistics of the student population are set out in Appendices VII and VIII. The expansion of the last few years has been considerably retarded through lack of accommodation. The College has, however, responded well to the challenge to offer more places for full-time students taking courses for honours and postgraduate degrees; 137 additional full-time students were enrolled during the session, an increase of 4·6 per cent over 1960–61. The result of the pressure on accommodation has been a considerable decrease in the number of part-time undergraduate occasional students accepted by departments, a trend which has halted for the first time for many years the steady increase in the number of overseas students admitted.

The reputation of the College as a centre for postgraduate studies is emphasised by the fact that the number of postgraduate students has once again shown a 5 per cent increase during the session and has all but achieved the remarkable figure of 1,100. The most significant increase was, however, in the intake of new undergraduates studying for degrees and diplomas, where the figure rose from 815 in October 1960 to 896 at the beginning of the session 1961–62, an increase of 10 per cent.

The income of the College in 1961–62 was £2,092,482 and exceeded that of the previous year by £114,350. This increase was represented by Court Grants and included grants for the revision of certain academic salaries and for the maintenance of new buildings coming into use during 1961–62.

Expenditure increased from £1,977,126 in 1960–61 to £2,090,400 in 1961–62. The bulk of this increase in expenditure was in the academic field, but £42,000 was devoted to maintenance of buildings and to running expenses connected with the occupation of new accommodation.

The revision of academic salaries was prevented by reason of the national ' pay pause ', except for a small increase which was granted to the more junior grades of the academic staff.

Research activities in the College sponsored by grants from public bodies continued to increase. Expenditure in the year, not included in the figures quoted above, was £408,224, an increase of £92,424 over the previous year.

During the year arrangements which had been under discussion for some time past between the University Grants Committee and the Medical Research Council, the Department of Scientific and Industrial Research and the Agricultural Research Council were

completed. Funds having been made available by the Treasury through the University Grants Committee, a number of research projects formerly sponsored by the three Research Councils became the responsibility of the College from 1 August 1962.

Capital grants were claimed and paid to the extent of £567,745 upon: acquisition and adaptation of properties, £118,590; building work, £199,870; professional fees, £53,275; and furniture and equipment, £196,010. Further capital expenditure, amounting to £231,705, was provided from War Damage and other funds.

The Friends of University College have continued their valued assistance to the College. Reference has already been made to the Rex Whistler Room. Such an addition to the gracious amenities of the College would not have been possible without the Friends. From their foundation the Friends have been particularly anxious to assist the undergraduate body and they have now undertaken another major plan to increase the amenities for students in the College. To enable the Exhibition Room in the new Engineering Building to be used as an informal meeting place for staff and students of the Departments located on the south side of the College island site, the Friends have promised up to £2,500 to provide the necessary furnishings, the equipment for the service of tea and coffee, and for the adaptation of a small room as a servery. The provision by the Friends of furnishings for the North Cloisters, which was recorded in our last Report, has given most successfully to the College an informal meeting place for staff and students which is being much used and appreciated.

The £3,700 which, as mentioned in our previous report, was contributed by the Friends for Shenley has enabled not only six hard tennis courts to be made but also a large number of trees to be purchased as a windbreak. Other noteworthy recent gifts to Shenley include £210 from Professor H. E. Watson, also for windbreak trees, and numerous flowering shrubs from Dame Harriette Chick.

The mounting and boxing of the College collection of pictures and prints, towards the cost of which the Friends gave the grant promised in 1958, are nearing completion. This has enabled a selection of prints to be hung on the walls of the cloisters and changed from time to time.

In making these valuable contributions the Friends have committed all their available funds other than capital subscribed in the form of investments. Only by increasing its membership and subscriptions can the Association of Friends hope to continue to play the part which they have so notably filled in the last few years. It is pleasing

to record that the Biochemical Society has given £50 to the Friends as a token of appreciation for the kindness shown to them by the College over many years, and that the Miriam Sacher Charitable Trust has again given £100 to the Friends.

A list of publications by members of the various Departments will be found on pages 24–63, showing the amount of work completed in the session. This is an impressive record and no attempt is made in these introductory comments to summarise the many research projects on which the Departments have been engaged. We would, however, quote as an example an account which we have received from the Faculty of Science of some of the research work carried out during the session by members of that Faculty, which, it is reported, had an active and enterprising session.

The Department of Physics has received a mass of data from the British satellite recently placed in orbit by a Thor-Delta rocket. The satellite sweeps out the space between latitudes 55° south and 55° north from a height of 400 kilometres to a height of 1,200 kilometres. Instruments built in the Department provided continuous records of the electron temperature and the X-ray flux from the sun (which yields the effective temperature of the solar corona), and at intervals the mass spectrum of the ions present in space. Instruments built in the University of Birmingham and at Imperial College recorded the electron density and the flux of heavy cosmic ray particles. It is still providing much information, although its effectiveness has been reduced by a high altitude nuclear bomb test. The data is being analysed with R.A.E. assistance on the Aldermaston computer; it has already shown the gravitational separation of the ions; it should greatly increase our understanding of the sun's influence on the upper atmosphere. After a year the transmitter will switch itself off.

The Department of Scientific and Industrial Research has generously supplied the Department of Chemistry with a £25,000 electron spin resonance apparatus containing a three ton magnet. This is in use in conjunction with the nuclear magnetic resonance apparatus and with classical methods; it provides new information on the behaviour of the free electrons.

The United States Air Force has made the Department of Psychology a grant for testing theoretical models for learning and choice against human and animal experiments. A very simple model is already showing good correlations with the experiments. The Department has accepted the responsibility for the cultural and educational side of a long-term Medical Research Council study of the

children recently brought to this country from Tristan da Cunha. It is also collaborating with University College Hospital and St Pancras Hospital in using subliminal perception to study anxiety and depressive states.

Professor H. Grüneberg, Professor of Genetics, led an expedition to the Malabar Coast of India, and returned with the skeletons of 900 rats. A comparison of those caught living on the thorium sands, with those caught a few miles away, will enable the Department to study natural selection, when the mutation rate is increased by a ten-fold increase in the general level of radioactivity.

Eighty sixth-form teachers attended a new type of evening course given by the Department of Mathematics to enable them to obtain a deeper understanding of the mathematics that they teach. Many wrote to say how much they had benefited from the course.

The new wing of the University of London Observatory, built through the aid of the Perren Fund, was opened. Here the Department of Astronomy has set up a spectroscope, which will later be used for solar observations, but which is now being used to make the laboratory measurements that are necessary for the interpretation of stellar spectra. Staff and research students will visit observatories with clearer skies to obtain stellar spectra for analysis; one student is already at work in Pretoria.

Among new appointments we would welcome Dr A. H. Chilver who came from the University of Cambridge to the Chadwick Chair of Civil Engineering, and Mr P. E. Corbett from the British Museum, who was appointed to the Yates Chair of Classical Art and Archaeology.

In August 1962 Professor P. B. Medawar resigned from the Jodrell Chair of Zoology and Comparative Anatomy to take up his new appointment as Director of the National Institute for Medical Research. He has won distinction for himself and the Zoology Department by his outstanding achievements in research for which he was awarded a Nobel Prize in 1960. He combined great originality in research with a capacity for administration and for maintaining a wide view on university problems. All this was early recognised by his appointment in 1955 as a member of the University Grants Committee. Professor Medawar has been a valuable member of the College whose loss will be felt widely. It is good to know that his association with the College has not been entirely severed as he remains on the staff of the Zoology Department as an Honorary Research Associate.

The end of the academic year saw the retirement of several senior

members of the staff who had been familiar figures in the College for many years.

Dr Hélène Coustenoble, Reader in Phonetics since 1947, was first appointed to the staff of the Phonetics Department in 1918. She has been an admirable teacher, always setting high standards for her pupils, and many hundreds of students must have passed through her hands and owe her an immense debt of gratitude for the training she gave them. Dr Coustenoble has indeed rendered invaluable service, not only to the Department and the College, but also to the subject of Phonetics. Through her teaching, her very considerable research work into the phonetic structure of various languages, and her notable publications, Dr Coustenoble has become a well-known authority on phonetics in many countries. Her capacity for organisation was shown by the manner in which she managed to keep a section of the Department going during the evacuation of the College in the war years, and also by the important part she played in resuscitating the Department on its return to London.

The retirement of Dr F. C. Harris, Senior Lecturer in Mathematics, recalls the long association of his family with the College, for his father, Colonel H. J. Harris, was also a member of the Mathematics Department for many years and the first Senior Tutor of the College. Dr Harris entered the Mathematics Department as a student in 1914; his undergraduate course was interrupted by war service but he returned to the College in 1919 and for the next forty-three years had an unbroken record of service, including the teaching of Mathematics to succeeding generations of Engineering as well as Science students. During the second world war he was responsible for the teaching of Mathematics to Engineering students evacuated to Swansea. In the immediate post-war years he acted, with Mrs Harris, as warden of a residence for women students, many of whom will have happy recollections of the College Rooms in Cartwright Gardens—a post-war experiment in student accommodation which owed much of its success to the endeavours of Dr and Mrs Harris and to the keen interest they took in the welfare of students. Dr Harris had yet another sphere of activity in the College which will be remembered gratefully by many: from 1934 to 1954 he was honorary secretary of the Old Students' Association and gave much time and labour to the work of building up and maintaining this important organisation.

Dr J. N. E. Day had been a well-known figure in the Chemistry Department since he first came to it in 1920 for, besides his teaching duties, he had for many years been responsible for the supervision of

the Chemistry Stores, making in this way his own unique contribution to the smooth running of the Department.

By the retirement of P. Brooker, G. J. Charlton and F. Ormrod the Slade School lost three members of its teaching staff who had given long and loyal service to the School. Between them they gave over a hundred years of teaching to the Slade School, Mr Ormrod being its first teacher of lithography.

Mr J. A. Hussey, Establishment Officer since 1952, retired on 31 July 1962. As Secretary of the Refectory and Student Accommodation Committees he had been associated with the solution of many problems which have arisen during a decade in which more progress has been made in these two sections of College life than ever before. Responsible also for the recruitment and training of technicians, Mr Hussey saw such staff in the College nearly double in number. Indeed, many important developments in the College during the past ten years have had the effect of increasing substantially the duties of its Establishment Officer, all of which Mr Hussey has discharged most ably.

The year brought changes on the College Committee.

Sir Frederick James resigned his office as Treasurer of the College on 1 April 1962. He had held that office continuously for a decade. Much of this period had been a time of austerity in the financial affairs of the College. As Chairman of the Finance Committee Sir Frederick had always achieved a balance between the exercise of a severe over-all financial discipline and a sympathetic understanding of urgent academic needs in the judgment of priorities for the use of scarce resources. Sir Frederick's principal interest had been in reshaping the structure of financial control. But he had been constantly concerned to facilitate projects for the long-term development of the College, and in matters of detail he had been ready to adapt financial orthodoxy to the exigencies of particular situations. During his tenure of office he promoted the introduction, in association with the University, of a modern system of unification of trust funds and the broadening of investment powers from which financial advantages were immediately derived. The College is deeply indebted to Sir Frederick James for the close and detailed attention which he has given unsparingly to the duties of the office despite many onerous commitments in other fields of activity. At the end of the session he relinquished his office as Vice-Chairman of the College Committee, though he continues to serve as a member of that Committee.

Sir Bernard Waley-Cohen succeeded Sir Frederick James as Treasurer of the College, and has been appointed a member of the

Senate of the University of London, representing the College. Lord Strang has been elected Vice-Chairman of the College Committee.

In the course of the session the College Committee was strengthened by the appointment of Sir Edward Playfair and Professor Lady Williams, the latter on the nomination of the London County Council.

The sixth Reunion to be arranged for former students of the College was held, at the invitation of the Provost and the President of the Association of Friends of the College, on 16 February 1962. It took the form of a Reception for former students who entered the College between October 1920 and June 1930, and was the first of the second cycle of Reunions.

On 18 June 1962 the Director and staff of the University of London Observatory held an At Home. Tea was served in the grounds of the Observatory at Mill Hill and after speeches by the Provost and the Director, visitors were given the opportunity to inspect the New Wing.

The 1962 Assembly of Faculties was held in the Large Hall at Friends' House on 21 June. The Special Visitor, Sir Cyril Hinshelwood, attracted a large and appreciative audience.

COHEN, *Chairman*

IFOR EVANS, *Provost*

SUPPLEMENT

OBITUARY

We record with deep regret the death during the year of a number of past and present members of the College.

Among them were three Fellows, including Professor Emeritus G. J. Renier. From 1919 to 1929 he was in the Department of History as a postgraduate student and from 1934 to 1957 as a member of staff. In 1936 he became Reader, and in 1945 Professor, of Dutch History and Institutions. The establishment on a sound and lasting basis of the teaching of Dutch history in the College owes much to his efforts. He made important and stimulating contributions to his subject, and reached a wider public with an early study in national psychology called *The English are they Human?* which, as was common with him, concealed a very serious intention behind a lighter approach. In his later years he produced an extremely thoughtful

and judicious work on *History, its purpose and methods*. He was a man to whom history was a vital and not merely a professional preoccupation. As a lecturer he was greatly in demand and his gift of languages was extraordinary. He had a wide circle of student friends in whom he took a warm-hearted interest, for his kindness and understanding were immense and won for him confidence and affection as well as respect.

The other Fellows whose death occurred during 1961–62 were Professor C. H. O'Donoghue, Emeritus Professor of Zoology in the University of Reading and formerly a member of staff of the Zoology Department of University College London, and Augustus John, O.M., the painter. Augustus John was probably the Slade School's most famous pupil, whose reputation as a draughtsman was made while he was still a student; and who was later to become the most sought after and controversial portrait painter of his day, his work being represented in National Galleries throughout the world.

The College lost three present members of staff. Professor Mark Thomson died early in January 1962. He was a member of staff in the History Department from 1930 to the outbreak of war in 1939, and after wartime service in the Research Department of the Foreign Office and eleven years in a professorial appointment in the University of Liverpool, he returned to the College in 1956 as Astor Professor of English History. An exact and dedicated scholar, a lively and witty conversationalist, he was one of the most generous and kindly of men; simple and sincere, he will be remembered with gratitude and affection.

The death of A. C. Stevenson, Reader in Applied Mathematics since 1940, ends a long association with the College, to which he came as a student in 1919, after serving as an Observer with the Royal Flying Corps. When he died on 1 September 1962 he had almost completed his fortieth year as a member of staff in the Department of Mathematics. By his own work, the clarity of his teaching, and the encouragement of his many research students, he advanced the knowledge of his subject. He was generous and friendly by nature, and will be remembered affectionately by all who knew him.

The Faculty of Medical Sciences suffered a loss by the death of Dr E. A. Blake Pritchard in June 1962. He had served the Department of Anatomy and Embryology as Honorary Lecturer in Neurology since 1959.

Among former members of the academic staff who died were H. W. Acomb, Lecturer in the School of Librarianship from 1929

to 1934, and Warden of University College Hall during 1932–33, Professor Sir Ronald Fisher, Galton Professor of Eugenics from 1933 to 1943, and A. E. Webb, who retired in 1951 after serving as a member of staff in the Mechanical Engineering Department of the College for thirty years.

In the course of the year the College heard with regret of the death of many of its former students, among whom special mention might be made of the Rev. Arthur Barnett who, as Honorary Secretary of the Jewish Historical Society for twenty-five years, worked in close association with the College, in particular as a member of the Mocatta Library Committee, and of S. L. G. Beaufoy, Chief Housing and Planning Inspector of the Ministry of Housing and Local Government, whose early training as a town planner had been received in the College.

The death of Miss B. G. Greig severed an exceptional link with the life of the College in the early half of the century. She joined the administrative staff in 1907, became Sir Gregory Foster's private secretary in 1914, and the first Assistant Secretary of the College in 1919, holding this post until her retirement in 1946. Miss Greig's devotion found its final expression during the years of the second world war, when she remained in Gower Street carrying on her duties under the difficult conditions imposed by enemy action and mounting destruction. Miss Greig built up a knowledge of College affairs which cannot have been equalled by many others, and the College owes much to the able assistance she gave over the long years when the burden of administration was carried by a faithful few.

HONOURS AND APPOINTMENTS

A Baronetcy was conferred on Sir Bernard Waley-Cohen on the completion of his year of office as Lord Mayor of London.

The 1962 New Year Honours List included, among a number of former students, Sir Arthur W. Snelling, recently appointed Deputy Under-Secretary of State in the Commonwealth Relations Office, who received the award of K.C.V.O., and E. M. Duke, Speaker in the Legislative Council of Trinidad and Tobago, on whom was conferred the Order of C.B.E.

The Queen's Birthday Honours included the conferment of a Baronetcy on Sir Frederic Hooper, Fellow of the College, and a Knighthood on J. F. Lockwood, Master of Birkbeck College, formerly a member of the staff of the Departments of Latin and Greek at University College, Sub-Dean of the Faculty of Arts

during the war years, and subsequently Professor of Latin. The Order of K.B.E. was conferred on D. P. Walsh, Deputy Secretary, Ministry of Housing and Local Government, a former History student, and that of C.B.E. on two other former students, J. M. Curry, Assistant Chief Architect, Ministry of Works, and H. E. G. Read, Past President of the Chartered Land Agents' Society.

The Swedish Government appointed Professor W. R. Mead a Chevalier of the Order of Vasa, First Class.

Lord Strang was appointed a Deputy Speaker of the House of Lords.

Among Government appointments obtained by former students were those of Sir Richard Turnbull as the first Governor-General of the Independent State of Tanganyika in the British Commonwealth, who was promoted from K.C.M.G. to G.C.M.G., and J. C. B. Richmond as Ambassador Extraordinary and Plenipotentiary to the State of Kuwait. Mr Sebag Shaw, who studied Law at the College, was appointed to the rank of Queen's Counsel. Overseas, B. K. M. Kiwanuka, another former Laws student, became the first Prime Minister of Uganda, and President Nkrumah, who read Philosophy at the College, was installed as Chancellor of the University of Ghana.

Lord Robbins, an Honorary Fellow of the College, was elected President of the British Academy; Professor C. E. Dent, Fellow of the College, became a Fellow of the Royal Society; and another Fellow of the College, Professor Sir Austin Bradford Hill, was elected to an Honorary Fellowship of the Royal Society of Medicine. A former member of the Slade School, Rodney J. Burn, was elected as a Royal Academician. Professor G. W. Keeton became President of the Society of Public Teachers of Law, and Professor E. H. Thompson, President of the Photogrammetric Society of Great Britain. Professor P. B. Medawar was appointed Director of the National Institute for Medical Research from August 1962. Mr P. G. Foote was elected a Corresponding Member of the Royal Gustav Adolf Academy of Sweden.

Among former members of staff who obtained interesting appointments were Professor H. O. Corfiato, who was elected Secretary-General of the Franco-British Union of Architects, and Professor T. J. B. Spencer, who was appointed Director of the Shakespeare Institute at Stratford-on-Avon.

Honorary degrees were conferred as follows: the D.Litt. of the University of Birmingham on Professor Sir William Coldstream, the D.Sc. of the University of Leeds on Sir Henry Dale, the D.Sc. of

the University of Birmingham on Sir Charles Goodeve, an Honorary Doctorate in Science of the Rockefeller Institute, New York, on Professor A. V. Hill, the LL.D. of the University of Liverpool on Professor Sir William Holford, the LL.D. of the Australian National University in Canberra on Sir William Hudson, the D.Sc. of the University of Manchester and the D.Sc. of the University of Leicester on Professor Dame Kathleen Lonsdale, the LL.D. of the University of Manchester on Lord Marks of Broughton, the LL.D. of the University of Glasgow on Professor Sir Harrie Massey, the Sc.D. of the University of Cambridge, the D.Sc. of the University of Hull, and an Honorary Doctorate of the University of Brazil on Professor P. B. Medawar, and an Honorary Doctorate of the University of Uppsala on Professor A. H. Smith. The University of London, at its Foundation Celebration in November 1961, conferred the honorary degree of LL.D. on Sir Bernard Waley-Cohen.

Dr F. H. C. Crick, former student in Physics and now Fellow of the College, was awarded the Prix Charles Leopold Mayer of the French Academy of Sciences, and T. F. A. Manning, former student and member of staff of the Bartlett School of Architecture, the first prize of £5,000 in an open competition for the design of a group of halls of residence for students of the University of Liverpool.

The following former students and members of staff of the College were appointed to University Chairs and Readerships: Dr D. B. Allbrook to the Chair of Anatomy in Makerere University College, East Africa, K. M. Barbour to the Chair of Geography in the University College of Ibadan, F. de la C. Chard to the Chair of Electrical Engineering in the University of Khartoum, Dr Alice Garnett as Professor of Physical Geography in the University of Sheffield, Dr R. G. S. Hudson to the Chair of Geology and Mineralogy at Trinity College, Dublin, Dr H. Halberstam to the Erasmus Smith Chair of Mathematics at Trinity College, Dublin, Dr J. Lewis as Professor of Inorganic Chemistry in the University of Manchester, Dr Y. Pocker as Professor of Chemistry in the University of Washington, U.S.A., Dr J. P. Quilliam to the Chair of Pharmacology at St Bartholomew's Hospital Medical School, Professor L. A. Sheridan to the Chair of Comparative Law in Queen's University, Belfast, Dr G. Kohnstam to a Readership in Physical Chemistry in the University of Durham, Dr M. B. Thorn to a Readership in Biochemistry at St Thomas's Hospital Medical School, and Dr J. A. Willis to a Readership in Classics in the University of Western Australia. The title of Reader in Applied Mathematics was conferred on Dr B. L. Moiseiwitsch by Queen's University, Belfast.

Within the University of London, Professor F. Norman, Fellow of the College, was appointed Deputy Vice-Chancellor for 1962–63. Professor J. A. B. Gray has been serving as Dean of the University Faculty of Science, H. Tout as Dean of the University Faculty of Economics, and Professor G. W. Keeton as Chairman of the Extension Committee. Dr F. Hartley, a former student, has been appointed Dean of the School of Pharmacy.

Within the College, Professor Elizabeth M. Wilkinson became Head of the Department of German, Professor A. B. C. Cobban, Head of the Department of History and Professor E. D. Hughes, Head of the Department of Chemistry. Dr H. O. Schild was appointed to the Chair of Pharmacology and to the headship of the Department of Pharmacology. Following the death of Professor Mark Thomson, Professor J. Hurstfield was appointed to the Astor Chair of English History. The title of Professor of Geography was conferred by the University on Dr W. R. Mead. The following were appointed to established Readerships: Dr E. J. Harris (Biophysics), Dr K. A. Kermack (Vertebrate Palaeontology), and Dr E. A. Power (Applied Mathematics). The title of Reader was conferred by the University on: A. C. Gimson (Phonetics), E. W. Handley (Greek and Latin), D. C. Holland (English Law), D. W. James (Anatomy), J. Maynard Smith (Zoology), Dr M. Schachter (Physiology), W. Townsend (Fine Art), Dr C. A. Vernon (Chemistry), Dr G. L. Watson (Mathematics) and Dr J. G. Weiss (Hebrew). Dr R. C. Brown succeeded D. Orson Wood as Careers Adviser.

There were various College Faculty changes at the beginning of the session: Professor E. C. Ryder became Dean of the Faculty of Laws and Professor E. R. H. Ivamy, Vice-Dean; Professor W. R. Dean was appointed Dean of the Faculty of Science and Professor D. Lewis, Vice-Dean; D. W. James became Sub-Dean of the Faculty of Medical Sciences.

STUDENT HEALTH ASSOCIATION

The Health Service continues to provide preventive and treatment services for staff and students on an increasing scale. During 1961–62 there were 13,988 medical and 5,985 dental attendances. Accommodation problems have been eased by the provision of additional rooms for research at 6 Gordon Street. Congestion at the Centre itself, however, remains and yearly becomes a more pressing problem.

Preventive measures include tuberculosis immunisation and mass miniature radiography, poliomyelitis immunisation, tetanus toxoid

inoculation, and other inoculations as required for those travelling abroad, or in special circumstances. At the time of the smallpox outbreak about 2,500 members of the College were vaccinated. The Association continues to collaborate in the organisation of preventive measures against radiation and laboratory hazards.

The sick visiting scheme run by the Chairman of the Student Health Association continued to provide, during the winter, much appreciated help for students ill in lodgings.

A full research programme is in progress. During the year a number of projects were completed. The survey of the 1960 intake, undertaken in collaboration with the Psychology Department and financed by the Medical Research Council, has continued.

OLD STUDENTS' ASSOCIATION

The Rev. A. Montgomery Mann was elected President of the Association at the 1961 Annual General Meeting. Mr G. S. Congreve, who had come, perhaps, to be regarded as an institution rather than as Secretary after his many years of painstaking service, was elected a Vice-President, so that the Council has not been deprived of his valuable experience. Dr H. K. Cameron was again nominated for election to the College Committee.

Membership continues to increase and now stands at approximately 4,000. No less encouraging is the rise in attendance figures at the social functions. While undoubtedly a major attraction on these occasions is the opportunity to maintain or renew friendships and acquaintances formed within the College, the Council strives to arrange a programme which has its own intrinsic appeal and will welcome any suggestion or criticism offered to help it achieve this end. In particular, the views of those new members whose first subscription has been paid by the College but on whose continued support the future health of the Association will depend would be worthy of special consideration. In the case of most, there seems to be something of a hiatus between graduation and the urge to renew active association with the College; but there also seems to be subsequent regret for the lapse. If the more or less established pattern of the annual programme is at fault for not providing any attraction for the majority of new College leavers, the Council would very much like to know.

The session's activities attracted the support of a very large proportion of those members living in or near the metropolitan area. There was a capacity attendance to hear the College's new

Treasurer, Sir Bernard Waley-Cohen, Bt, who was guest of honour at the Special Dinner in May. The summer function outside the College, a dinner at the Fellows' Restaurant of the Zoological Gardens with Sir Solly Zuckerman as guest of honour, and the annual Dinner-Dance in February each met with a similar encouraging response. It was, unfortunately, necessary to postpone the talk by Sir Alec W. G. Randall originally arranged for November until the 1962–63 session, but Group-Captain P. H. Wood, who filled the breach, delighted his audience with his illustrated reminiscences of Ceylon. In March, Professor F. R. Winton provided a concert of chamber music and both the size of the audience and the reception given his quartet left no doubt about the appeal of this type of entertainment.

THE STUDENTS' UNION

This has been an interesting and busy year for the Union.

The two-tier administrative machinery of the Union was reviewed during the year, but largely because of the impressive record of efficiency during the past two years, no proposals for structural changes were forthcoming. Council meetings were held far more frequently than previously and all matters were discussed in detail. Fortnightly General Meetings have usually been well attended, and debate and discussion are no longer restricted to the same few people.

The most significant happening in the Union has been a tendency for members to be more conscious of their responsibilities. This has shown itself through the greatly increased membership of political societies: the affiliation of an International Voluntary Service Society, which will give practical and financial help to the aged, the sick and the poor in the Borough of St Pancras; the many new voluntary aid schemes being operated by the affiliated religious and political societies; and the interest now being shown in youth club work. This increased activity is resulting in a complete overhaul of the Union's machinery for charitable work, after which it is hoped to co-ordinate projects in the same field without placing any restrictions on diversification of activity.

The Union itself has undergone a series of constitutional upheavals centred on the introduction of politics into General Meetings. Finally a General Meeting overwhelmingly passed amendments to the Constitution which provided for separate General Meetings to be held on matters not concerning students as such. This was part of the general outward-looking movement, and it is to be hoped that it will

ensure further stimulation of interest in matters other than the rather parochial ones which in recent years have more normally been associated with student life.

The most recent manifestation of this trend was the gathering, at the height of examination time last term, of some 2,000 members of the College in protest against the Government's rejection of the University Grants Committee's estimates for expenditure on the universities in the coming quinquennium. This meeting gained national press and television coverage.

The normal functions of the Union have not suffered because of this increased sphere of activities. Of the Associated Societies, the Dramatic Society in particular has abounded with ideas and enthusiasm, and it was no surprise when its production of *Woyzeck* reached the final of the N.U.S. Drama Festival. Recently members of the Dramatic Society published the first edition of a new theatrical magazine, *Prompt*, which was of an extremely high standard. The Music Society very successfully staged *Lodoiska* for its annual operatic production and, in the Christmas and Foundation Concerts, performed Rachmaninov's Piano Concerto No. 2, Opus 18, and Vaughan Williams' *Sea Symphony* as the major works. The Film Society produced two College news-reels during the year, and also completed a cartoon-film in colour. The Jazz Society continues to pack the Union on Monday evenings, although this year the University College band has not gained the national recognition which it has done in previous years. The standard of debating is, fortunately, again on the upgrade, and, although the numbers attending the debates are still relatively low, more speakers are coming forward from the floor. Recently the Photographic Society was associated with the Union and several exhibitions and competitions are being arranged for next year.

There can be little doubt that the standard of University College sport continues to improve. In each of the Foundation, Commemoration, and Summer Games, King's College was beaten by a record margin. Several clubs won their respective U.L.U. intercollegiate competitions and many individuals played for University and other senior representative teams. At the start of the year Gliding, Fives, Weight Training, Women's Boats, and Women's Cricket Clubs all became active, and, in all, the total number of students actively engaged in some sport has increased by some two hundred.

The Freshers' Conference ran smoothly, but doubts as to the efficiency of the present form have led to many alterations in next

year's conference: in connection with this a three day, residential pre-university course was attended at Easter by fifty sixth-formers from all over England who will be coming up to College next year. All of the Foundation Week events were well attended despite their spread over a month. The holding of the Going-Down Ball on the day of the Assembly of Faculties and within the College precincts proved a great success.

In the field of student welfare much has been done. The Student Health Association now has a new constitution which should ease the administrative problems of the Health Centre. Recently an anti-smoking campaign has been started and it is intended that more such preventive medicine should be practised in future. At the end of the year the Student Accommodation Committee noted with approval the success, both from the point of view of the students and of the Establishment Officer, of the Gordon Street Student Houses: development of this idea in conjunction with existent plans for the building of new Halls of Residence is recommended by the Union.

As usual University College has had very eloquent representation at both U.L.U. Presidents' Council and at N.U.S. Council. Much work has been done by the College in both fields with a great deal of success in N.U.S. but, as expected, abysmal failure with U.L.U. In N.U.S., two members including Walter Greaves, President of the University College Union, 1961–62, were elected to the steering committee for the next Council Meeting and David Taylor, President for 1960–61, was elected to the position of Student Secretary.

Throughout the year excellent relationships have been maintained between the College authorities and the Union. So long as the present co-operation and understanding exist there need be little worry for the future. Certainly this situation is most conducive to the good working and health of the Union.

ROBERT J. TAYLOR
President, 1962–63

PUBLICATIONS BY MEMBERS OF COLLEGE DEPARTMENTS

[1 AUGUST 1961—31 JULY 1962]

FACULTY OF ARTS

ANTHROPOLOGY

BARNICOT, N. A., Haptoglobins and transferrins. *Genetical Variations in Human Populations*, ed. G. Ainsworth-Harrison. Oxford: Pergamon Press, 1961, 41–61.

(with Huxley, H.E.), The electron microscopy of unsectioned human chromosomes. *Ann. hum. Genet., Lond.*, 25 (1961), 253–8. 5 pls.

BRADBURY, R. E., Ezomo's Ikegobo and the Benin Cult of the hand. *Man*, 61 (1961), 129–38.

FORDE, DARYLL, The governmental roles of association among the Yakö. *Africa*, xxxi (1961), 309–22.

Report on the work of the International African Institute. *Ibid.*, xxxii (1962), 279–84.

GARLICK, J. P., Blood group maps of Africa. *Journal of African History*, iii (1962), 297–300.

HORTON, ROBIN, The Kalabari world-view: an outline and interpretation. *Africa*, xxxii (1962), 197–219.

MIDDLETON, J. F. M., Africa: Anthropology of East Africa. *Encyclopaedia Britannica*, 1 (1962), 316.

PARTRIDGE, LEILA (with Sunderland, Eric, Zeki, Semir M.), Taste blindness to P.T.C. in the Black Mountain area of Carmarthenshire, Wales. *Man*, 62 (1962), 38–9.

UCKO, PETER J., The interpretation of prehistoric anthropomorphic figurines. *J. R. anthrop. Inst.*, 92 (1962), 38-54.

WESCOTT, JOAN, MORTON-WILLIAMS, PETER, The symbolism and ritual context of the Yoruba *Laba Shango*. *J. R. anthrop. Inst.*, 92 (1962), 23-37.

ARCHITECTURE

COWAN, PETER, Communication or conflict. *Lancet*, 2 (1961), 1027–9.

Architectural problems of the Centre Site Project. *Bull. Fac. Med. B'hm*, No. 2 (1962), 4–6.

Research in architectural schools—B.A.S.A. Conference, York 1961. *B.A.S.A. Conf. Rep.* (July 1962), 125–9.

COWAN, PETER, WATSON, N. F., Teaching and learning. *Architects' Journal*, 134 (1961), 247–8.

LISBORG, NIELS, *Principles of Structural Design*. London: Batsford, 1961. 447 pp.

COMPARATIVE PHILOLOGY

SZEMERÉNYI, O. J. L., *Trends and Tasks in Comparative Philology*. Inaugural Lecture, University College London. H. K. Lewis, 1962. 21 pp.

The study of substratum in Ancient Italy. *Romance Philology*, 15 (1962), 301–11.

EGYPTOLOGY

ARKELL, A. J., *A History of the Sudan* (2nd ed. rev.). London: Athlone Press, 1961. 252 pp.

The Aterian of Great Wanyanga. *Actes du IVe Congrès Panafricain de Préhistoire*, 40 (1962), 233–42.

The distribution in Central Africa of one Early Neolithic ware (Dotted Wavy Line pottery) and its possible connection with the beginning of pottery. *Ibid.*, 283–7, 2 pls.

The Petroglyphs of Wadi Zirmei in north-eastern Tibesti. *Ibid.*, 391–4, 9 pls.

EMERY, W. B., *Archaic Egypt*. Harmondsworth: Penguin Books, 1961. 269 pp., with illust.

A Funerary Repast in an Egyptian Tomb of the Archaic Period. De Buck Memorial Lecture. Leiden: Nederlands Instituut voor het Nabije Oosten, 1962. 14 pp., 9 pls.

A preliminary report on the excavations of the Egypt Exploration Society at Buhen, 1959–60. *Kush*, ix (1961), 81–6.

FAULKNER, R. O., *A Concise Dictionary of Middle Egyptian*. Oxford University Press (for Griffith Institute), 1962. 327 pp.

ENGLISH LANGUAGE AND LITERATURE

BROWN, A., Later Elizabethan and Early Stuart drama. *Year's Work in English Studies*, xl (1959), 131–47.

(with Schoenbaum, S.), *The Bloody Banquet*, edited from the quarto of 1639. Oxford University Press, for The Malone Society, 1962. xii+60 pp.

CHALKER, J., 'Virtue Rewarded': The sexual theme in Richardson's *Pamela*. *Literary Half-Yearly*, ii (July 1961), 58–64.

EMSLIE, McD., Dryden's couplets: wit and conversation. *Essays in Criticism*, xi (1961), 264–73.

'To compose': a possible seventeenth-century meaning. *Neophilologus*, 2 (1962), 145.

HULME, HILDA M., *Explorations in Shakespeare's Language*. London: Longmans, Green, 1962. xii+351 pp.

NOWOTTNY, WINIFRED M. T., *The Language Poets Use*. London: The Athlone Press, 1962. xii+225 pp.

PEAKE, C. H., Swift's '*Satirical Elegy on a Late Famous General*'. *A Review of English Literature*, III (1962), 80-9.

PEAKE, C. H., HADDAKIN, LILIAN F., The eighteenth century. *Year's Work in English Studies*, 1959, xl (1961), 186-216.

QUIRK, RANDOLPH, *The Use of English* (with suppls. by A. C. Gimson and J. Warburg). London: Longmans, Green, 1962. viii+333 pp.

Research problems in English language. *English Teaching Abroad and the British Universities*, ed. H. G. Wayment. London: Methuen, 1961, 51–7.

Some observations on the language of Dickens. *A Review of English Literature*, II (1961), 19–28.

QUIRK, RANDOLPH, DUCKWORTH, A. P., Co-existing negative preterite forms of *Dare*. *Language and Society*. Copenhagen: Berling, 1961, 135–40.

SMITH, A. H., *The Place-Names of the West Riding of Yorkshire*. Cambridge University Press. 1961: vol. IV, xii+262 pp.; vol. V, xii+222 pp.; vol. VI, xii+274 pp.; 1962: vol. VII, xvii+307 pp.

SVARTVIK, J., Thirty years of linguistics. *Moderna Språk*, 56 (1962), 8–17.

THOMAS, D. B., Children's book illustration in England. *The Penrose Annual*, 56 (1962), 67–74.

TURNER, D. L., *Lucian: Satirical Sketches*, transl. from Greek with intr. and glossary. Harmondsworth: Penguin Classics, 1961. 320 pp.

Selections from Pliny's Natural History in Philemon Holland's translation, selected and edited, with intr., glossary and index. London: Centaur Press, 1962. 496 pp.

Victorian best-seller. *English for All* (Summer 1962), 10.

Some ancient light on Tennyson's *Oenone*. *Journal of English and Germanic Philology*, lxi (1962), 57–72.

WARBURG, J. F., *The Best-Chosen English*. London: Secker and Warburg, 1961. 35 pp.

Notions of Correctness. Suppl. in Randolph Quirk, *The Use of English*. London: Longmans, Green, 1962, 315-28.

SLADE SCHOOL OF FINE ART

ETTLINGER, L. D., *Art History Today*. Inaugural Lecture, University College London. H. K. Lewis, 1961. 21 pp.

A note on Raphael's Sibyls in S. Maria della Pace. *Journal of the Warburg and Courtauld Institutes*, xxiv (1961), 322.

Four centuries of German art. *The Listener*, lxvi (16 Nov. 1961), 824.

Reviews of the following:

Fritz Novotny, *Painting and Sculpture in Europe 1780–1880*. *Burlington Magazine*, civ (1962), 84–5.

S. J. Freedburg, *Painting of the High Renaissance in Rome and Florence*. *The Listener*, lxvii (30 May 1962), 180.

FORGE, ANDREW, Modern Art as an institution. *The Listener*, lxvi (31 Aug. 1961), 318.

GEORGE, PATRICK, Painting what you see. *London Magazine*, 2 (1962), 59–62.

TOULMIN, S. E., *Foresight and Understanding*. London: Hutchinson, 1961. 116 pp.

FRENCH

BERTAUD, J. E., *L'Enfant des Villes*. *Poètes de Notre Temps*, No. 252. Monte Carlo, 1961. 48 pp.

KING, C. D. (Editor), A. Dhôtel, *L'Ile aux oiseaux de feu*. London: Harrap, 1961. 111 pp.

(with Osmond, N. H.), The Romantic Era. *Year's Work in Modern Language Studies*, 1960, xxii (1961), 88–124.

RINSLER, NORMA S., Nerval et Biron, *Revue d'Histoire Littéraire de la France*, 61 (1961), 405–10.

SCREECH, M. A., Rabelaesiana. *Bibliothèque d'Humanisme et Renaissance*, xxiii (1961), 514–19.

SMITH, C., La notion d'objet chez Merleau-Ponty. *Actes du Premier Colloque de la Société britannique de Philosophie de langue française* (1962), 27–31.

Philosophical survey. Philosophy in France. *Philosophy*, xxxvii (1962), 67–70.

TANCOCK, L. W., Emile Zola, *Thérèse Raquin*. A new translation with intr. The Penguin Classics, L. 120. Harmondsworth: Penguin Books, 1962. 254 pp.

UNDERWOOD, V. P., Rimbaud et les lettres anglo-saxonnes. *Revue de littérature comparée*, 35 (1961), 433–57.

Les Fêtes Galantes de Verlaine. *Revue d'Histoire littéraire de la France*, 62 (1962), 89–95.

WOLEDGE, B., Le thème de la pauvreté dans la *Mutacion de Fortune* de Christine de Pisan. *Mélanges de Philologie offerts à R. Guiette* (Antwerp, 1961), 97–106.

GEOGRAPHY

BAKER, A. R. H., Local history in early estate maps. *The Amateur Historian*, 5 (1962), 66–71.

BIRD, E. C. F., Landform changes at Lakes Entrance. *Victorian Naturalist*, 78 (1961), 137–46.

The coastal barriers of East Gippsland, Australia. *Geogr. J.*, 127 (1961), 460–8.

The river deltas of the Gippsland Lakes. *Proc. roy. Soc. Vict.*, 75 (1962), 65–74.

Water supply and waste disposal in the Latrobe valley, Victoria. *Geography*, 47 (1962), 190–2.

(with Turner, J. S., Carr, S. G. M.), The dune succession at Corner Inlet, Victoria. *Proc. roy. Soc. Vict.*, 75 (1962), 17–33.

BROWN, E. H., Britain and Appalachia: a study in the correlation and dating of planation surfaces. *Transactions and Papers of the Institute of British Geographers*, 1961, 29 (1962), 91–100.

CHANDLER, T. J., Surface breeze effects of Leicester's heat-island. *The East Midland Geographer*, 15 (1961), 32–8.

The changing form of London's heat-island. *Geography*, 46 (1961), 295–307.

Diurnal, seasonal and annual changes in the intensity of London's heat-island. *Meteorological Magazine*, 91 (1962), 146–53.

COPPOCK, J. T., *The Chilterns*. Sheffield: The Geographical Association, 1962. 28 pp.

Electronic data processing in geographical research. *Prof. Geogr.*, 14 (1962), 1–4.

COPPOCK, J. T., JOHNSON, J. H., Measurement in human geography. *Econ. Geogr.*, 38 (1962), 130–7.

CROSSLEY, J. C., Santa Cruz at the cross roads. *Tijdschrift voor Economische en Sociale Geographie*, lii (1961), 197–206, 230–41.

DARBY, H. C., National parks in England and Wales. *Comparisons in Resource Management*, ed. Henry Jarrett. Baltimore: Johns Hopkins, 1961, 8–34.

Historical geography. *Approaches to History*, ed. H. P. R. Finberg. London: Routledge and Kegan Paul, 1962, 127–56.

The problem of geographical description. *Transactions and Papers of the Institute of British Geographers*, 1962, 30 (1962), 1–14.

The south-eastern counties. *The Domesday Geography of South-east England*, ed. H. C. Darby and E. M. J. Campbell. Cambridge University Press, 1962, ch. 11, 563–610.

DE VORSEY, L., The Virginia-Cherokee boundary of 1771. *East Tennessee Historical Society Publications*, No. 33 (1961), 2–16.

GULLEY, J. L. M., The retrospective approach in historical geography. *Erdkunde*, 15 (1961), 306–9.

GULLEY, J. L. M., SINNHUBER, K. A., Isokartographie; eine terminologische Studie. *Kartographische Nachrichten*, 11 (1961), 89–99.

JOHNSON, J. H., The development of the rural settlement pattern of Ireland. *Geografiska Annaler*, 43 (1961), 165–73.

The political distinctiveness of Northern Ireland. *Geogr. Rev.*, 52 (1962), 78–91.

MEAD, W. R., Problems of a divided waterway. *Geography*, 47 (1962), 89–92.

OLIVER, J. L., East London furniture industry. *East London Papers*, 4 (1961), 88–101.

PRINCE, H. C., The geographical imagination. *Landscape*, 11 (1961–2), 22–5.

Pits and ponds in Norfolk. *Erdkunde*, 16 (1962), 10–31.

SINNHUBER, K. A., *Germany, its Geography and Growth*. London: John Murray, 1961. 128 pp.

THOMAS, D., Agricultural changes in the Welsh borderland: a cultural diffusion at the turn of the eighteenth century. *Transactions of the Honourable Society of Cymmrodorion*, Pt I (1961), 101–14.

Statutory preservation of the countryside in England and Wales. *Zeitschrift für Wirtschaftsgeographie*, 6 (1962), 34–8.

WARD, R. G., Internal migration in Fiji. *J. Polynes. Soc.*, 70 (1961), 257–71.

GERMAN

MOWATT, D. G., Studies towards an interpretation of the *Nibelungenlied*. *German Life and Letters*, xiv (1961), 257–70.

ROWLEY, B. A., Theodor Fontane: a German novelist in the European tradition? *German Life and Letters*, xv (1961), 71–88.

SACKER, H. D., On irony and symbolism in the *Nibelungenlied*: two preliminary notes. *German Life and Letters*, xiv (1961), 271–81.

WILKINSON, E. M., Editor of German entries in *Notebooks of Samuel Taylor Coleridge Vol. II, 1804–1808*, ed. Kathleen Coburn. New York: Bollingen Foundation, 1961.

(with Willoughby, L. A.), Goethe to Herder, July 1772. Some problems of pedagogic presentation. *German Life and Letters*, xv (1961), 110–22.

(with Willoughby, L. A.), The blind man and the poet. An early stage in Goethe's quest for form. *German Studies Presented to Walter Horace Bruford*. London: Harrap, 1962, 29–52.

GREEK

BROWNING, R., A new source on Byzantine-Hungarian relations in the twelfth century: the inaugural lecture of Michael ὁ τοῦ Ἀγχιάλου as ὕπατος τῶν φιλοσόφων. *Balkan Studies* (*Thessalonika*) 2 (1961), 173–214.
The Death of John II Comnenus. *Byzantion*, 21 (1961), 229–35.
Herodotus V.4 and Euripides *Cresphontes* fr. 449 N. *Classical Review*, 74 (1961), 201–2.

CUNNINGHAM, M. L., Second thoughts on P. Oxy. 2253. *Rheinisches Museum*, 105 (1962), 189–90.

KELLS, J. H., Hyperbaton in Sophocles. *Classical Review*, 75 (1961), 188–95.

TURNER, E. G., Euripidean hypotheses in a new papyrus. *Proc. IX International Congress of Papyrology, 1958*, Oslo (1962), 1–17.
(with Rea, J., Koenen, L., and Pomar, J. M. F.), *The Oxyrhynchus Papyri*, Pt XXVII. London: Egypt Exploration Society, 1962. 224 pp., 12 pls.

WEBSTER, T. B. L., *Monuments Illustrating Tragedy and Satyr Play*. Institute of Classical Studies, Bulletin Suppl., No. 14, 1962. 129 pp., 6 pls.
Appendix on Theatrical Figurines. Clairève Grandjouan, *The Athenian Agora*, Vol. VI. Princeton: American School of Classical Studies in Athens, 1961, 85–8.
Revised edition of A. W. Pickard-Cambridge, *Dithyramb, Tragedy and Comedy*. Oxford: Clarendon Press, 1962. 320 pp.
La Grèce de Mycènes à Homère. Transl. by M. Matignon. Paris: Payot, 1962. 316 pp.
Polity and society. *A Companion to Homer*, ed. A. J. B. Wace and F. H. Stubbings, London: Macmillan, 1962, 451–62.
Some notes on the New Epicharmus. *Serta Philologica Aenipontana*, Band 7–8. Innsbrucker: Beiträge zur Kulturwissenschaft, 1961, 85–91.

HEBREW

WEISS, J. G., Via Passiva in early Hasidism. *Journal of Jewish Studies*, xi (1960), 137–55.

WIESENBERG, E., Review of Z. Ankori, *Karaites in Byzantium. Bulletin of the School of Oriental and African Studies*, xxv (1962), 165–7.

HISTORY

ALLEN, H. C., Anglo-American relations 1960. *The American Review*, No. 2 (Autumn 1960), 7–17.
Anti-Americanism in Britain. *Contemporary Review*, 200 (Dec. 1961), 625–9.

BURNS, J. H., Scottish churchmen and the Council of Basle, Pt I (1431–37). *Innes Review*, xiii (1962), 3–53.

BURNS, J. H., COBBAN, A. B. C., Rousseau's *Du contrat social*: some problems of translation. *Political Studies*, x (1962), 203–7.

CHRISTIE, I. R., *Wilkes, Wyvill, and Reform: The Parliamentary Reform Movement in British Politics, 1763–1785*. London: Macmillan, 1962. xii+247 pp.
Adeane of Babraham. *The Genealogists' Magazine*, xiii (1961), 385–6.

Select bibliography, England: the eighteenth century, 1714–1815. *Handbook for History Teachers*, ed. W. H. Burston and C. W. Green. London: Methuen, 1962, 467–72.

COBBAN, A. B. C., *Rousseau and the Modern State*. Reprinted (first publ. 1934). Hamden, Connecticut: Archon Books, 1961. 288 pp.

Editorial notes. *History*, xlvi (1961), 226–7; xlvii (1962), 46–9.

The beginning of the Channel Isles Correspondence, 1789–1794. *English Historical Review*, lxxvii (1962), 38–52.

DROWER, MARGARET S., Egypt—Archaeology; History; Ancient Civilization and Culture. *Encyclopaedia Britannica*.

HUMPHREYS, R. A., Latin America. *Handbook for History Teachers*, ed. W. H. Burston and C. W. Green. London: Methuen, 1962, 630–2.

HURSTFIELD, J., Some Elizabethans. *History*, xlvii (1962), 18–31.

R. R. Betts: an appreciation. *The Slavonic and East European Review*, xl (1961), 2–6.

KOSSMANN, E. H., La storiografia olandese oggi. *Rivista Storica Italiana*, lxxiii (1961), 335–44.

Bulletin critique de l'historiographie néerlandaise en 1960 et 1961. *Revue du Nord*, xliii (1961), 357–87.

MOMIGLIANO, A. D., Storiografia su tradizione scritta e storiografia su tradizione orale. *Atti Accademia Scienze di Torino*, 96 (1961–62), 1–12.

Risposta a un critico russo. *Rivista Storica Italiana*, lxxiv (1962), 139–42.

J. Burckhardt e la parola cesarismo. *Ibid.*, 369–71.

La questione delle origini di Roma. *Cultura e Scuola*, ii (1962), 68–74.

Introduzione a R. Syme. *La Rivoluzione Romana*, trad. it. Torino: Einaudi, 1962, i-xx.

Reviews of the following:

H. J. Leon, *The Jews of Ancient Rome*. *Gnomon*, 34 (1962), 178–82.

E. Gjerstad, *Early Rome*. *Rivista Storica Italiana*, lxxiii (1961), 802–8.

POLE, J. R., Forward from McCarthyism: The American Right and the Conservative Norm. *Political Quarterly*, xxxiii (1962), 196–207.

Historians and the problem of early American democracy. *American Historical Review*, lxvii (1962), 626–46.

REDDAWAY, T. F., The story of University College, London. *St Pancras Journal*, 16 (1962), 40–2, 49.

The London Goldsmiths *circa* 1500. *Transactions of the Royal Historical Society*, 5th ser., xii (1962), 49–62.

THOMPSON, F. M. L., *St Albans School in the Abbey*. St Albans: Fraternity of the Friends of St Albans Abbey, 1961. 29 pp.

(with Thirsk, Joan), List of publications on the economic history of Great Britain and Ireland published in 1960. *Economic History Review*, 2nd ser., xiv (1962), 524–51.

ITALIAN

FAHY, C., Italian studies: humanism and the Renaissance. *The Year's Work in Modern Language Studies*, 1960, xxii (1961), 258–78.

The marriage of Edward IV and Elizabeth Woodville—a new Italian source. *English Historical Review*, lxxvi (1961), 660–72.

Notes on Charlemont and Baretti. *Journal of the Royal Society of Antiquaries of Ireland*, xcii (1962), 61–6.

MOORES, J., Italian studies: Duecento and Trecento. *The Year's Work in Modern Language Studies*, 1960, xxii (1961), 246–58.

WEISS, R., Torquato Tasso, *Jerusalem Delivered—The Edward Fairfax Translation newly introduced by Roberto Weiss*, London: Centaur Press, 1962. 545 pp.

A note on the so-called 'Fidei Simulacrum'. *Journal of the Warburg and Courtauld Institutes*, xxiv (1961), 128.

La lapide delle Otto Foglie di San Michele in Isola. *Archivio Veneto*, lxviii (1961), 11–16.

La bolla plumbea di papa Paolo II (1464–1471). *Numismatica*, ii (1961), 129–35.

Publio Fausto Andrelini. *Dizionario Biografico degli Italiani*, iii (1962), 138–41.

Giovanni Aurelio Augurello, Girolamo Avogadro, and Isabella d'Este. *Italian Studies*, xvii (1962), 1–11.

Le monete del doge Nicolò Tron ed un ritratto perduto di Gentile Bellini. *Italia Numismatica*, xiii (1962), 52.

LATIN

COFFEY, M., Seneca Apocolocyntosis (Report for the Years 1922–1958). *Lustrum*, 6 (1961), 239–71.

SKUTSCH, O., Enniana IV. *Classical Quarterly*, 11 (1961), 252–67.

Plautus, *Rudens* 599a. *Classical Review*, 12 (1962), 120.

Terence, *Heaut.* 652. *Mnemosyne*, 14 (1961), 241.

SCHOOL OF LIBRARIANSHIP AND ARCHIVES

BELL, L., Showcases. *Journal of the Society of Archivists*, ii (1962), 216–19.

FOSKETT, D. J. (with Palmer, B.I.), Editors. *Sayers Memorial Volume*. London: Library Association, 1961. 218 pp.

Classification in the social sciences. *Library World*, 63 (1961), 161–6.

Classification for community development. *Community Development Bulletin*, 13 (1962), 55–9.

The London education classification. *Education Libraries Bulletin*, No. 14 (1962), 1–9.

The Fremont Rider classification. *Library Review*, No. 142 (1962), 431–5.

IRWIN, R., Sections on Librarianship and Library History. *Encyclopaedia of Librarianship* (2nd rev. ed.), ed. T. Landau. London: Bowes & Bowes, 1961.

The approach to a national library in England. *Library Association Record*, 64 (1962), 81–93.

IRWIN, R., STAVELEY, R., Editors. *The Libraries of London* (2nd rev. ed.). London: Library Association, 1961. 332 pp.

NIXON, H. M., English bookbindings, XXXVIII-XLI. *The Book Collector*, 10 (1961), 320, 440; 11 (1962), 62, 204.

Grolier's *Chrysoston. The Book Collector*, 11 (1962), 64–70.

Roger Bartlett, bookbinder. *The Library*, 5th ser., xvii (1962), 56–65.

STAVELEY, R., *Notes on Subject Bibliography* (2nd rev. ed.). University College London, School of Librarianship and Archives, 1961. 107 pp.

Student and tutor. *The Sayers Memorial Volume*, ed. D. J. Foskett and B. I. Palmer. London: Library Association, 1961, 56–71.

TIMINGS, E. K., A great fancy for arms. *Brontë Society Transactions*, xiv (1961), 13–17.
The archivist and the public. *Journal of the Society of Archivists*, ii (1962), 179–83.
WATSON, A. G., Two unrecorded items of 1603. *The Library*, 5th ser., xvi (1961), 299–302.
Sir Robert Cotton and Sir Simonds D'Ewes: an exchange of manuscripts. *British Museum Quarterly*, xxv (1962), 18–24.

PHILOSOPHY

DOWNING, P. B., Opposite conditionals and deontic logic. *Mind*, lxx (1961), 491–502.
HAMPSHIRE, S. N., Spinoza and the idea of freedom. *Proceedings of the British Academy*, xlvi (1961), 195–215.
Friedrich Waismann, 1896–1959. *Ibid.*, 309–17.
Disposition and memory. *Int. J. Psycho. Anal.*, xliii (1962), 59–68.
David Hume's place in philosophy. *The Listener*, lxvii (25 June 1962), 1063–4.
SPRIGGE, T. L. S., Internal and external properties. *Mind*, lxxi (1962), 197–212.
WILLIAMS, B. A. O., La certitude du Cogito. *Cahiers de Royaumont IV*. Paris: Editions Minuit, 1962, 40–57.
Mr Strawson on Individuals. *Philosophy*, xxxvi (1961), 309–32.
Democracy and ideology. *Political Quarterly*, xxxii (1961), 374–84.
WOLLHEIM, R. A. (Editor), F. H. Bradley, *Ethical Studies*. Oxford University Press, 1961. 344 pp.
Equality and equal rights. *Justice and Social Policy*, ed. F. A. Olafson. New Jersey: Prentice-Hall, 1961, 111–27.

PHONETICS

BERNSTEIN, B. B., Social class and linguistic development: a theory of social learning. *Education, Economy and Society*, ed. A. H. Halsey, J. Floud and A. Anderson. New York: The Free Press, 1961, 288–314.
Linguistic codes, hesitation phenomena and intelligence. *Language and Speech*, 5 (1962), 31–46.
CHAPALLAZ, MARGUERITE, Further notes on Italian intonation. *Le Maître Phonétique*, 77 (1962), 5–7.
DENES, P., MILTON-WILLIAMS, J., Further studies in intonation. *Language and Speech*, 5 (1962), 1–14.
GIMSON, A. C., The transmission of language. Suppl. I in Randolph Quirk, *The Use of English*. London: Longmans, Green, 1962, 257–311.
GOLDMAN-EISLER, FRIEDA, Hesitation and information. *Information Theory: Proc. 4th London Symposium on Information Theory*, ed. C. Cherry. London: Butterworth, 1961, 162–74.
The significance of changes in the rate of articulation. *Language and Speech*, 4 (1961), 171–4.
Continuity of speech utterance, its determinants and significance. *Ibid.*, 220–31.
The distribution of pause durations in speech. *Ibid.*, 232–7.
Speech and thought. *Discovery*, xxiii (1962), 36–41.

O'Connor, J. D., Arnold, G. F., *Intonation of Colloquial English*. London: Longmans, Green, 1961. 270 pp.

Pring, J. T. (with Sofoniou, S. A.), *Teach Yourself Modern Greek*. London: English Universities Press, 1962. x+230 pp.

(with Germer, R.) *A New English Phonetic Reader*. Dortmund: Lambert Lensing, 1962. 64 pp.

Sadler, V., Effect of succeeding vowel on consonant recognition in noise. *Language and Speech*, 4 (1961), 133–8.

Wells, J. C., A specimen of British English. *Le Maître Phonétique*, 77 (1962), 2–5.

POLITICAL ECONOMY

Allen, G. C., *The Structure of Industry in Britain*. London: Longmans, Green, 1961. x+236 pp.

A Short Economic History of Modern Japan (rev. ed.). London: Allen & Unwin, 1962. 237 pp.

Cramp, A. B., *Opinion on Bank Rate, 1822–60*. London: G. Bell for London School of Economics, 1962. xii+118 pp.

How much does money matter? *The Bankers' Magazine*, cxcii (1961), 242–7.

Financial intermediaries and monetary policy. *Economica*, n.s., xxix (1962), 143–51.

Two views on money. *Lloyds Bank Review*, No. 65 (1962), 1–15.

Donnithorne, A. G., The organisation of rural trade in China since 1958. *The China Quarterly*, No. 8 (1961), 77–91.

Spraos, J., *The Decline of the Cinema: An Economist's Report*. London: Allen & Unwin, 1962. 168 pp.

Projects de réforme monétaire internationale. *Revue de la Société d'Etudes et d'Expansion*, No. 197 (1961), 537–40.

Sturmey, S. G., The tonnage position analysed. *Times Review of Industry* (Dec. 1961), 9–10.

Income tax and economic stability. *The Bankers' Magazine*, cxciii (1962), 3025.

SCANDINAVIAN STUDIES

Foote, P. G., Snorri Sturluson. *Heimskringla*. Transl. by Samuel Laing, now revised with intr. and notes. London: Dent, 1961. xxxii+461 pp.

Lives of Saints: Perg. fol. nr. 2, Royal Library Stockholm (Early Icelandic Manuscripts in Facsimile IV). Copenhagen: Rosenkilde og Bagger, 1962. 36 pp., 192 pl.

Translation of Sven B. F. Jansson, *The Runes of Sweden*. Stockholm: Norstedt, 1962. 168 pp.

Bishop Jörundr Þorsteinsson and the relics of Guðmundr Arason. *Studia Centenalia in honorem memoriæ Benedikt S. Þórarinsson*. Reykjavík: Ísafold, 1961, 98–114.

On the fragmentary text concerning St Thomas Becket in Stock. perg. fol. nr. 2. *Saga-Book of the Viking Society*, xv (1961), 403–50.

Jones, W. G., Danish studies. *The Year's Work in Modern Language Studies*, xxii (1962), 426–37.

Støverud, T., Review of: J. W. McFarlane, *The Oxford Ibsen* V-VI. *German Life and Letters*, xv (1961–62), 164–6.

TOWN PLANNING

HOLFORD, SIR WILLIAM, Brasilia: The federal capital of Brazil. *Geog. J.*, cxxviii (1962), 15–18.

Piccadilly Circus Future Development. London County Council, March 1962.

Dinamica e Forma Della Nuova Citta. *La Nuova Dimensione della Citta—La Citta Regione*. Instituto Lombardo per gli Studi Economici e Sociali (Jan. 1962), 107–25.

Architectural Education. Keynote Address, 55th Annual Assembly, Royal Architectural Institute of Canada, 31 May 1962. *Royal Architectural Institute of Canada Journal*.

GLASS, RUTH, West Indian search for exits. *The Times* (22 Nov. 1961), 13.

Ashes of discontent. *The Listener*, lxvii (1 Feb. 1962), 207–9.

Urban sociology. *Society: Problems and Methods of Study*, ed. A. T. Welford, Michael Argyle, D. V. Glass, J. N. Morris. London: Routledge & Kegan Paul, 1962, 481–97.

KEEBLE, L. B., *Town Planning at the Crossroads*. London: Estates Gazette, 1961. 207 pp.

Residential layout. *Interbuild*, 9 (1962), 33–5.

What to do about London. *Socialist Commentary* (Jan. 1962), 15–17.

Planning appeals: some thoughts on current practice. *Estates Gazette*, 180 (25 Nov. 1961), 517.

Town and country planning—notes of the year. *Municipal Year Book* (1962), 544–7.

Review of: *The Future Metropolis. J. Tn. Plann. Inst., Lond.*, xlviii (1962), 140.

SCOTT, WOLF (with Moser, C. A.), *British Towns: A statistical study of their social and economic differences*. Edinburgh: Oliver & Boyd, 1961. xii+169 pp.

FACULTY OF LAWS

ENGLISH LAW

BENTHAM, R. W., Charity law and legislation; recnt developments. *Current Legal Problems*, 15 (1962), 159–75.

HARDY-IVAMY, E. R., *Reflections on Commercial Law*. Inaugural Lecture, University College, London. Stevens & Sons, 1962. 18 pp.; and in *Current Legal Problems*, 15 (1962), 66–82.

Bills of lading and short shipment. *The Law Times*, 232 (1961), 283–4.

Arbitration awards. *The Law Journal*, 111 (1961), 591–2.

Unroadworthy car: fundamental breach of implied condition of fitness. *The Journal of Business Law* (1961), 296–8.

Car purchased by infant: collateral statement by adult; indemnity or guarantee. *Ibid.*, 298–9.

A 'depreciation clause': penalty or pre-estimate of damages. *Ibid.* (1962), 69–71.

Damages for breach of contract by hire-purchaser. *Ibid.*, 187–8.

Recent decisions on bills of lading. *The Law Times*, 233 (1962), 17–18.

The future of the Commercial Court. *Ibid.*, 129–30.

Pollution by oil. *Ibid.*, 297–8.

Cancelling clauses in voyage charter-parties. *The Law Journal*, 112 (1962), 36–8.
Limitation of liability of stevedores. *Ibid.*, 86–7.
'Subject to approval.' *Ibid.*, 302–3.
Confirming houses. *Ibid.*, 382–3.

HARGROVE, B., The place of the criminologist in criminal law. *The Police College Magazine*, 7 (1962), 156–65.
The police and the public. *The Solicitor Quarterly*, I (1962), 154–8.
Present problems of Trade Union law. *Current Legal Problems*, 15 (1962), 39–65.

HOLLAND, D. C., A British Ombudsman. *The Solicitor Quarterly*, I (1962), 147–58.
Human rights in Nigeria. *Current Legal Problems*, 15 (1962), 145–58.

KEETON, G. W., *The Modern Law of Charities*. London: Sir Isaac Pitman, 1962. xxxv+345 pp.

KORAH, VALENTINE L., Restrictive practices, II: re Cement Makers' Federation's agreement. *The Solicitor*, 28 (1961), 286.
The Monopolies Commission report on the supply of cigarettes. *The Solicitor*, 28 (1961), 345.
The control of amalgamations which are likely to restrict competition. *The Solicitor Quarterly*, I (1962), 252–69.

MILLNER, M. A., Common law perspective. *The Solicitor Quarterly*, I (1962), 138.
Eclipse of a judiciary. *International and Comparative Law Quarterly*, 2 (1962), 886.
The common law and the Common Market. *Current Legal Problems*, 15 (1962), 18–38.

PREVEZER, S. Criminal law reform. *Law Society's Gazette*, 58 (1961), 655–7.
The criminal jurisdiction of the House of Lords. *Current Legal Problems*, 15 (1962), 102–25.

RYDER, E. C., Settled land: mistakes and their consequences. *Current Legal Problems*, 15 (1962), 194–209.

SCAMELL, E. H., Trusts for the accumulation of income beyond the statutory periods. *The Conveyancer & Property Lawyer*, 25 (1961), 273–7.
Control or nationalisation of land? *Current Legal Problems*, 15 (1962), 210–25.
Lindley on Partnership (12th ed.). London: Sweet & Maxwell, 1962. clii+949 pp.

WATERS, D. W. M., Constructive trust: mortgagor and mortgagee. *Current Legal Problems*, 15 (1962), 176–93.
Judge Learned Hand. *The Solicitor Quarterly*, I (1962), 30–9.

INTERNATIONAL LAW AND RELATIONS

BROWN, E. D., Selected bibliography on self-defence under the United Nations Charter and the use of prohibited weapons. *International Law Association, Brussels Conference* (1962), 44–6.

CHENG, B., *The Law of International Air Transport*. London: Stevens & Sons, 1962. xlii+726 pp.
International co-operation and control: from atoms to space. *Current Legal Problems*, 15 (1962), ~~246–7~~.
226-247.

FORREST, R. M., Carriage by air. The Hague Protocol. *International and Comparative Law Quarterly*, 10 (1961), 726–38.

SCHWARZENBERGER, G., *The Frontiers of International Law*. London: Stevens & Sons, 1962. xxii+320 pp.

Report on self-defence under the United Nations Charter and the use of prohibited weapons. *International Law Association, Brussels Conference* (1962), 44.

The law of air warfare and the trend towards total war. *Mélanges en l'honneur de Gilbert Gidel* (1961), 523–42.

Military necessity: a misnomer. *Mélanges Séfériadès*, I (1961), 13–21.

The protection of private property in the law of belligerent occupation. *Indian Journal of International Law*, I (1961–62), 193–223.

The scope for neutralism. *Archive of Economic and Social Sciences, Athens*, 42 (1962), 141–51.

The Eichmann Judgment. *Current Legal Problems*, 15 (1962), 248–65.

Reports on world affairs: legal aspects. *The Year Book of World Affairs*, 16 (1962), 244–69.

STRANGE, SUSAN, Changing trends in world trade. *The Year Book of World Affairs*, 16 (1962), 139–58.

JURISPRUDENCE

LLOYD, D., Television and the law. *Current Legal Problems*, 15 (1962), 83–101.

FACULTY OF SCIENCE

ASTRONOMY

FIELDER, G., The contraction and expansion of the Moon. *Planet. Space Sci.*, 8 (1961), 1.

On the origin of lunar rays. *Astrophys. J.*, 134 (1961), 425.

Small-scale explosion craters, impact craters, and the physical structure of the Moon's surface. *Mon. Not. R. astr. Soc.*, 123 (1962), 15–26.

Ray elements and secondary impact craters on the Moon. *Astrophys. J.*, 135 (1962), 632.

FIELDER, G., JORDAN, C., Selenological implications drawn from the distortions of craters in the Hipparchus region of the Moon. *Planet. Space Sci.*, 9 (1962), 3.

FIELDER, G., WARNER, B., Stress systems in the vicinity of lunar craters. *Planet. Space Sci.*, 9 (1962), 11.

FOSTER, E. W., Measurements of transition probabilities in the visible spectra of O I and C I and estimation of vacuum ultra-violet radiation standards. *Proc. phys. Soc. Lond.*, 79 (1962), 94.

GARSTANG, R. H., Transition probabilities for permitted and forbidden lines of Si X, Fe XIV and Fe X. *Ann. Astrophys.*, 25 (1962), 109.

(with Douglas, A. S.), Transition integrals for Si IV and Ca II. *Proc. Camb. phil. Soc.*, 58 (1962), 377.

GARSTANG, R. H., WARNER, B., *Identifications 5880–6867 Å for Late Type Stars*. University of London Observatory Mimeogram No. 50 (1962), 17 pp.
KIANG, T., The galaxian luminosity function. *Mon. Not. R. astr. Soc.*, 122 (1961), 263.
The effect of a resisting medium on elliptical orbits. *Ibid.*, 123 (1962), 359.
Asteroid counts and their reduction. *Ibid.*, 509.
SAEMUNDSSON, TH., Statistics of geomagnetic storms and solar activity. *Mon. Nat. R. astr. Soc.*, 123 (1962), 299.
WARNER, B., Stresses in the surface of the Moon. *J. Brit. Astr. Ass.*, 71 (1962), 388.
The lunar maria. *Planet. Space Sci.*, 5 (1961), 283.
Accretion and erosion on the surface of the Moon. *Ibid.*, 321.
The initial mass function and the occurrence of stars of small mass. *Pub. Astron. Soc. Pacific*, 73 (1961), 439.

BOTANY

BELL, P. R., Morphology of the flowering plants. *Sci. Progr.*, 50 (1962), 441–50.
The *Pteridophyta*. *Ibid.*, 86–96.
Botany. *Britannica Book of the Year*, 1962.
Herbal. *Encyclopaedia Britannica*, 1962.
(with Mühlethaler, K.), Untersuchungen über die Kontinuität von Plastiden und Mitochondrien in der Eizelle von *Pteridium aquilinum* (L.) Kuhn. *Naturwissensch.*, 49 (1962), 63–4.
(with Mühlethaler, K.), A membrane peculiar to the egg in the gametophyte of *Pteridium aquilinum*. *Nature, Lond.*, 195 (1962), 198.
BELL, P. R., ZAFAR, A. H., Changes in the level of the protein nitrogen during growth of the gametophyte and the initiation of the Sporophyte of *Dryopteris borreri* Newm. *Ann. Bot., Lond.*, n.s., 25 (1961), 531–46.
BOCKS, SHEILA M., Nutritional requirements for the induced formation of malic enzyme in *Lactobacillus arabinosus* (17–5). *Nature, Lond.*, 192 (1961), 89–90.
CASSELTON, P. J., SYRETT, P. J., The oxidation of ^{14}C-labelled glucose by *Chlorella vulgaris*. 1. The time course of $^{14}CO_2$ production. *Ann. Bot., Lond.*, n.s., 26 (1962), 71–82.
2. The fate of radioactive carbon. *Ibid.*, 83–94.
CHALONER, W. G., Palaeo-ecological data from carboniferous spores. *Rec. Adv. Bot.*, 10 (1961), 980–3.
A *Sporangiostrobus* with *Densosporites* microspores. *Palaeont.*, 5 (1962), 73–85.
(with Clarke, R. F. A.), A new British Permian spore. *Ibid.*, 4 (1962), 648–52.
FOGG, G. E., BELCHER, J. H., Pigments from the bottom deposits of an English lake. *New Phytol.*, 60 (1961), 129–42.
FOWDEN, L., A new asparagine derivative, N^4-(2-Hydroxyethyl)-L-asparagine, from Bryony (*Bryonia dioica*). *Biochem. J.*, 91 (1961), 154.
The non-protein amino acids of plants. *Endeavour*, 21 (1962), 35–42.
FOWDEN, L., GRAY, D. O., 4-Methyleneproline: a new naturally-occurring proline derivative. *Nature, Lond.*, 193 (1962), 1285–6.
FOWDEN, L., PIETRUSZKO, R., γ-Aminobutyric acid metabolism in plants. Pt 1. Metabolism in yeasts. *Ann. Bot., Lond.*, n.s., 25 (1961), 491–511.

FOWDEN, L., DIXON, R. O. D., γ-Aminobutyric acid metabolism in plants. Pt 2. Metabolism in higher plants. *Ann. Bot., Lond.*, n.s., 25 (1961), 513–30.

GRAY, D. O., FOWDEN, L., α-(Methylenecyclopropyl) glycine from *Litchi* seeds. *Biochem. J.*, 82 (1962), 385.

LEWIS, D., The generation of self-incompatibility alleles. *J. Theoret. Biol.*, 2 (1962), 69–71.

WILKIE, D. (with Hawthorne, D.), Non-randomness of mitotic recombination in yeast. *Heredity*, 16 (1961), 524.

CHEMISTRY

ALLESTON, D. L., DAVIES, A. G., The preparation of some organotin (IV) compounds. *J. chem. Soc.* (1962), 2050–4.

Peroxides of elements other than carbon. Pt VIII. Organoperoxides of tin. *Ibid.*, 2465–71.

Nature of the so-called tetraalkyldihalogenodistannanes. *Chem. & Ind.*, No. 25 (1961), 949.

ALLESTON, D. L., DAVIES, A. G., FIGGIS, B. N., The structure of intermediates in the hydrolysis of dialkyltin (IV) compounds. *Proc. chem. Soc. Lond.* (1961), 457–8.

AUSTIN, M. W., BRICKMAN, MADELINE, RIDD, J. H. (with Smith, B. V.), Reactivity of some heteroaromatic nitrogen compounds in nitration. *Chem. & Ind.*, No. 24 (1962), 1507.

BALDWIN, M. E., CHAN, S. C., TOBE, M. L., The mechanism and steric course of octahedral aquation. Pt IV. The aquation of *cis*- and *trans*-chlorohydroxo-bis(ethylenediamine)cobalt(III) Salts. *J. chem. Soc.* (1961), 4637–45.

BANKS, B. E. C., Oxaloacetic acid. Pt I. The nature of oxaloacetic acid in the solid state and in neutral, aqueous solution. *J. chem. Soc.* (1961), 5043–6.

Pt II. The acid-base-catalysed protrotopy of oxaloacetic acid in aqueous solution. *Ibid.*, (1962), 63–71.

BANKS, B. E. C., DIAMANTIS, A. A., VERNON, C. A., Transamination. Pt II. The non-enzymic reactions between pyridoxamine and pyruvic acid and between pyridoxal and alanine. *J. chem. Soc.* (1961), 4235–7.

BANKS, B. E. C., RHIND-TUTT, A. J., VERNON, C. A. (with Meinwald, Y., Sheft, I.), Mechanism of reactions in the sugar series. Pt IV. The structure of the carbonium ions formed in the acid-catalysed solvolysis of glucopyranosides. *J. chem. Soc.* (1961), 3240–6.

BANTHORPE, D. V., HUGHES, E. D., INGOLD, C. K., Mechanism of benzidine and semidine rearrangements. Pt I. Kinetic dichotomy: kinetics, solvent-isotope effect, and products of acid rearrangement of 1, 1′-hydrazonaphthalene. *J. chem. Soc.* (1962), 2386–401.

BANTHORPE, D. V., HUGHES, E. D., Mechanism of benzidine and semidine rearrangements. Pt II. Kinetics and products of acid rearrangement of 1, 2′-hydrazonaphthalene. *J. chem. Soc.* (1962), 2402–6.

BANTHORPE, D. V., Mechanism of benzidine and semidine rearrangements. Pt III. Kinetics and products of acid rearrangement of 2, 2′-hydrazonaphthalene. *J. chem. Soc.* (1962), 2407–13.

Pt IV. Crossing tests on products of acid rearrangements of mixtures of hydrazonaphthalenes. *Ibid.*, 2413–18.

BANTHORPE, D. V., HUGHES, E. D., INGOLD, C. K., Mechanism of benzidine and semidine rearrangements. Pt v. Transitional kinetics and products of acid rearrangement of N-1-naphthyl-N′-phenylhydrazine. *J. chem. Soc.* (1962), 2418-28.

BANTHORPE, D. V., Mechanism of benzidine and semidine rearrangements. Pt VI. Transitional kinetics and solvent isotope effect in acid rearrangement of N-2-naphthyl-N′-phenylhydrazine. *J. chem. Soc.* (1962), 2429–35.

BANTHORPE, D. V., INGOLD, C. K., ROY, J. R., SOMERVILLE, S. M., Mechanism of benzidine and semidine rearrangements. Pt VII. Transitional kinetics and solvent isotope effect in acid rearrangement of o-hydrazotoluene. *J. chem. Soc.* (1962), 2436–44.

BARNARD, P. W. C., BUNTON, C. A., LLEWELLYN, D. R., VERNON, C. A., WELCH, V. A., The reactions of organic phosphates. Pt v. The hydrolysis of triphenyl and trimethyl phosphates. *J. chem. Soc.* (1961), 2670–6.

BARRACLOUGH, C. G., LEWIS, J. (with Bradley, D. C., Thomas, I. M.), The infra-red spectra of some metal alkoxides, trialkylsilyloxides, and related silanols. *J. chem. Soc.* (1961), 2601–5.

BICKNELL, R. C., MACCOLL, A., The pyrolysis of bornyl chloride. *Chem. & Ind.*, No. 25 (1961), 1912–13.

BRICKMAN, MADELINE, JOHNSON, SHEENA, RIDD, J. H., Substituent effects of the $—NH_3^+$ and the $—NMe_3^+$ group in nitration. *Proc. chem. Soc. Lond.* (1962), 228.

BUCHNER, P., COOPER, R. E., WASSERMANN, A., Influence of counterion fixation on molecular weight and shape of a polyelectrolyte. *J. chem. Soc.* (1961), 3974–83.

BUFFAGNI, S., DUNN, T. M., The spectra of inorganic complexes in non-aqueous solvents. Pt I. Chlorocobaltate ion and cobalt chloride. *J. chem. Soc.* (1961), 5105–14.

BUNTON, C. A., Nucleophilic reactions of peroxides. *Peroxide Reaction Mechanisms*, ed. J. O. Edwards. New York: Interscience, 1961, 11–28.
(with Kurosawa, Y., Hagan, M., Gut, M., Dorfman, R., Schubert, A.), The incorporation of $^{18}O_2$ into progesterone by Calonectria decors. *Agr. Biol. Chem.* (1961), 424–5.

BUNTON, C. A., FULLER, N. A., PERRY, S. G., SHINER, V. J., The pyridine catalysed hydrolysis of carboxylic anhydrides. *Tetrahedron Letters*, No. 14 (1961), 458–60.

BUNTON, C. A., HENDY, B. N., Tracer studies in ester hydrolysis.
Pt x. The hydrolysis of methyl toluene-*p*-sulphinate. *J. chem. Soc.* (1962), 2562–7.

BUNTON, C. A., SHINER, V. J. Jr, Isotope effects in deuterium oxide solution.
Pt II. Reaction rates in acid, alkaline and neutral solution, involving only secondary solvent effects. *J. Amer. Chem. Soc.*, 83 (1961), 3207–14.
Pt III. Reactions involving primary effects. *Ibid.*, 3214–20.

CALLOMON, J. H., WATSON, J. K. G. (with Brand, J. C. D.), The 3820-Å $^1A'' \leftarrow {}^1A'$ transition of propynal. *Can. J. Phys.*, 39 (1961), 1508–10.

CLARK, R. J. H., LEWIS, J., NYHOLM, R. S., PAULING, P., ROBERTSON, G. B., Eight-coordinate diarsine complexes of quadrivalent metal halides. *Nature, Lond.*, 192 (1961), 222–3.

CLARK, R. J. H., LEWIS, J., NYHOLM, R. S., Diarsine complexes of quadrivalent-metal halides. *J. chem. Soc.* (1962), 2460–5.

CLAXTON, T. A., CRAIG, D. P., THIRUNAMACHANDRAN, T., Crystal splitting of the anthracene 3800 Å system. *J. chem. Phys.* 35 (1961), 1525–6.

COLLINS, T. J., The continuous cloud chamber. *J. sci. Tech.*, 8 (1962), 45–8.

COOPER, R. E., UPADHYAY, J., WASSERMANN, A., Molecular size and shape of the ethylenediammonium salt of a polycarboxylic acid. *J. chem. Soc.* (1962), 2905–8.

(with Katchalsky, A.), Counter-ion fixation in alginates. *J. chem. Soc.* (1961), 5198–204.

COPPOLA, J. C., Systematic operational testing of the van Eller optical synthesis machine. *J. sci. Instrum.*, 38 (1961), 404–5.

CRAIG, D. P., Aromaticity. *Non-benzenoid Aromatic Compounds*, ed. David Ginsburg. New York: Interscience, 1959, 1–42.

CRAIG, D. P., THIRUNAMACHANDRAN, T., Intermolecular interactions in mixed crystals. *Proc. chem. Soc. Lond.* (1961), 253.

CRAIG, D. P., LYONS, L. E. (with Walsh, J. R.), The crystal spectra of very weak transitions. Pt I. Measurements of the naphthalene 3200 Å system at 4°K. *Mol. Physics*, 4 (1961), 97–112.

CRAIG, D. P., WALMSLEY, S. H., The crystal spectra of very weak transitions. Pt II. Theoretical. *Mol. Physics*, 4 (1961), 113–24.

Weak transitions in molecular crystals. *Electrical Conductivity in Organic Solids*, ed. H. Kallmann. New York: Interscience, 1961, 163–82.

DAVIES, A. G., PACKER, J. E., Organic peroxides. Pt X. The autoxidation of ethyl chaulmoograte: the course and stereo-chemistry of homolytic autoxidation. *J. chem. Soc.* (1961), 4390–8.

DE LA MARE, P. B. D., NAYLOR, P. G., WILLIAMS, D. L. H., The kinetics and mechanisms of additions to olefinic substances. Pt VIII. Addition of hypobromous acid to allyl bromide. *J. chem. Soc.* (1962), 443–9.

DE LA MARE, P. B. D., HASSAN, M., KLASSEN, N. V. (with Beaven, G.H., Johnson, E. A.), The kinetics and mechanisms of aromatic halogen substitution. Pt X. Products in the chlorination of biphenyl in acetic acid. *J. chem. Soc.* (1961), 2749–55.

DE LA MARE, P. B. D., KLASSEN, N. V. (with Koenigsberger, R.), The kinetics and mechanisms of aromatic halogen substitution. Pt XI. Chlorination of phenanthrene in acetic acid. *J. chem. Soc.* (1961), 5285–93.

(with Beaven, G. H., Johnson, E. A.), The kinetics and mechanisms of aromatic halogen substitution. Pt XII. Products of chlorination of fluorene in acetic acid. *J. chem. Soc.* (1962), 988–93.

DE LA MARE, P. B. D., HILTON, I. C., The kinetics and mechanisms of aromatic halogen substitution. Pt XIII. Bromination by hypobromous acid in concentrated mineral acids. *J. chem. Soc.* (1962), 997–1005.

DUNN, T. M., Spin-orbit coupling in the first and second transition series. *Trans. Faraday Soc.* 57 (1961), 1441–4.

DUNN, T. M., NYHOLM, R. S., YAMADA, S., The spectra of ditertiary arsine complexes. Pt I. The configuration of the iosmers of dihalogenobisdiarsinecobalt(III). *J. chem. Soc.* (1962), 1564–6.

EARNSHAW, A., FIGGIS, B. N., LEWIS, J., PEACOCK, R. D., The magnetic properties of some d^4-complexes. *J. chem. Soc.* (1961), 3132–8.

FERGUSSON, J. E., KIRKHAM, W., NYHOLM, R. S., Recent developments in the chemistry of Rhenium. *Rhenium*, Amsterdam: Elsevier 1961, 36–44. (Chicago Symposium on Rhenium, 1960).

FIGGIS, B. N., LEWIS, J., MABBS, F. E., The magnetic properties of some d^3-complexes. *J. chem. Soc.* (1961), 3138–45.

GILL, N. S., NYHOLM, R. S., PAULING, P. (in part with Barclay, G. A., Christie, T. I.), The structure of bispyridine metal dihalide complexes. *J. Inorg. Nucl. Chem.*, 18 (1961), 88–9.

GILLESPIE, R. J., OUBRIDGE, J. O. V., A nuclear magnetic resonance investigation of the reaction between arsenic trifluoride and sulphur trioxide. *Proc. chem. Soc. Lond.* (1960), 308.

GILLESPIE, R. J., SOLOMONS, C., Molon—A new concentration unit. *J. chem. Ed.*, 37 (1960), 202.

INGOLD, C. K., NYHOLM, R. S., TOBE, M. L., Orientation in octahedral basic hydrolysis. *Nature, Lond.*, 194 (1962), 344–7.

JOHNSON, M. D., N-Substituted quinolinium ions. Pt I. The reactions between the N-cyanoquinolinium ion and some nucleophiles. *J. chem. Soc.* (1962), 283–90.

JOHNSON, M. D., RIDD, J. H., N-substituted quinolinium ions. Pt II. The mechanism of formation of bromoquinolines from the N-cyanoquinolinium ion. *J. chem. Soc.* (1962), 291–6.

KIRKIEN-KONASIEWICZ, ALICIA, MACCOLL, A., The mechanism of solvolysis of γ-phenyltetronic acid enol esters. Pt I. A conductomeric study of the methanolysis of γ-phenyltetronic acid enol benzoate. *J. chem. Soc.* (1961), 5421–9.

LARKWORTHY, L. F., Iron bisindigo. A compound reported to exhibit oxygen-carrying properties. *J. chem. Soc.* (1961), 4025–33.

LEVER, A. B. P., LEWIS, J., NYHOLM, R. S., Metal-pyrazine complexes. Pt I. Compounds with cobalt(II) halides. *J. chem. Soc.* (1962), 1235–46.

LEWIS, J., Coordination complexes involving nickel and nitric oxide. *Rec. Chem. Progr.*, 22 (1961), 147–55.

LEWIS, J., MACHIN, D. J., NYHOLM, R. S. (with Newnham, I. E.), The magnetic properties of some halides of titanium and zirconium. *J. chem. Soc.* (1962), 2036–41.

LEWIS, J., NYHOLM, R. S., Modern Inorganic Chemistry. *Chem. and Eng. News*, 39 (1961), 102–10.

LEWIS, J., NYHOLM, R. S., PHILLIPS, D. J., Ditertiary arsine complexes of some d^{10} metals (Ag^{I}, Zn^{II}, Cd^{II}, and Hg^{II}). *J. chem. Soc.* (1962), 2177–83.

LEWIS, J., NYHOLM, R. S., SMITH, P. W., The structure of complex molybdenum(III) thiocyanates. *J. chem. Soc.* (1961), 4590–9.

Ditertiary arsine complexes of octahedral bivalent molybdenum. *Ibid.* (1962), 2592–5.

LIDE, D. R., Jr, MILLEN, D. J., TOPPING, G., Microwave spectrum and nonplanarity of cyanamide. *J. Molec. Spectroscopy*, 8 (1962), 153–63.

LONSDALE, K., Prof. Carl Hermann. *Nature Lond.*, 192 (1961), 604–5.

The religion of a scientist. *Advances of Science* (Mar. 1962), 559–63.

Restless atoms in solids. *Nature, Lond.*, 194 (1962), 5–8.

The structure of solids. Report on Structure Reports for 1954. *Ibid.*, 717–18.

MACCOLL, A., STONE, R. H., Gas phase eliminations. Pt II. The pyrolysis of s-butyl chloride, and the direction of eliminations from s-butyl compounds. *J. chem. Soc.* (1961), 2756–61.

EMOVON, E. A., MACCOLL, A., Gas-phase eliminations. Pt III. The pyrolysis of some secondary and tertiary alkyl acetates. *J. chem. Soc.* (1962), 335–40.

MAGNUSSON, E. A., ZAULI, C., Evaluation of molecular integrals by a numerical method. *Proc. phys. Soc. Lond.*, 78 (1961), 53–64.

MARTIN, D. F., TOBE, M. L., Mechanism and steric course of octahedral aquation. Pt v. The isomerisation, racemisation, and water exchange of *cis*- and *trans*-aquoamminebis(ethylenediamine)cobalt(III) salts. *J. chem. Soc.* (1962), 1388–96.

MILLEDGE, H. J., Coesite as an inclusion in G.E.C. synthetic diamonds. *Nature, Lond.*, 190 (1961), 1181.

The automatic selection of molecular crystal structures by combining stereochemical criteria and high speed computing. *Proc. roy. Soc.* A, 267 (1962), 566–89.

NYHOLM, R. S., Magneto-chemistry and its applications. *Conference Accad. Naz. dei Lincei, Chimica Inorg. Varenna*, 1959 (1961), 497–516.

Electron configuration and structure of transition metals. Tilden Lecture. *Proc. chem. Soc. Lond.* (1961), 273–96.

NYHOLM, R. S., PARISH, R. V. (with Barclay, G. A.), Tritertiary arsine complexes of nickel, palladium, and platinum. *J. chem. Soc.* (1961), 4433–42.

NYHOLM, R. S., TURCO, A., Complessi di Manganese(III) con 2, 2′-bipiridina-N, N′-diossido. *La Ricerca scientifica*, I Pt II (1961), 1–2.

Tervalent manganese complexes of 2, 2′-bipyridyl 1, 1-dioxide. *J. chem. Soc.* (1962), 1121–2.

PARKER, A. J., Solvation of ions. Pt III. The S_N^2 reactivity of some Group VI anions, pyridine, and alkyl halides in dipolar aprotic solvents. *J. chem. Soc.* (1961), 4398–401.

Carbon-basicity of halide and halogenide ions in nitrobenzene. *Proc. chem. Soc. Lond.* (1961), 371–2.

POCKER, Y., Theoretical organic chemistry. *Ann. Rep. Chem. Soc.* 1960, 57 (1961), 183–95.

RIDD, J. H., Nitrosation, diazotisation and deamination. *Quart. Revs.*, 15 (1961), 418–41.

SHELDON, J. C., Bromo- and iodo-molybdenum(II) compounds. *J. chem. Soc.* (1962), 410–15.

TOBE, M. L., Inorganic chemistry—The reactions of the ligand in metal complexes. *Sci. Progr.*, 49 (1961), 475–91.

WASSERMANN, A. (with Bauge, K., Smith, J. W.), Dipole moments of polyene-acid adducts. *J. chem. Soc.* (1962), 864–7.

WHITE, R. F. M. (with Chapman, A. C., Paine, D. H., Searle, H. T., Smith, D. R.), Phosphonitrilic derivatives. Pt v. The triphosphornitrilic fluoride chlorides. *J. chem. Soc.* (1961), 1768–71.

EUGENICS, BIOMETRY AND GENETICS

BERRY, R. J., Genetically controlled degeneration of the nucleus pulposus in the mouse. *J. Bone Jt. Surg.*, 43B (1961), 387–93.

(with Kettlewell, H. B. D.), The study of a cline. *Amathes glareosa* Esp. and its melanic *F. edda* Staud (Lep.) in Shetland. *Heredity*, 16 (1961), 403–14.

DEOL, M. S., Genetical studies on the skeleton of the mouse. XXVIII. Tail-short. *Proc. roy. Soc.* B, 155 (1961), 78–95.

ELLIS, J. R., Fragaria-Potentilla intergeneric hybridisation and evolution in Fragaria. *Proc. Linn. Soc. Lond.*, 173 (1962), 99–106.

(with Webster, G. L.), Cytotaxonomic studies in the Euphorbiaceae, subtribe Phyllanthinae. *Amer. J. Bot.*, 49 (1962), 14–18.

ELLIS, J. R., PENROSE, L. S., Enlarged satellites and multiple malformations in the same pedigree. *Ann. hum. Genet., Lond.*, 25 (1961), 159–62.

(with Miller, O. J.,) A male with XXYY chromosomes. *Ibid.*, 145–51.

GRÜNEBERG, H., Evidence for genetic drift in Indian rats (*Rattus rattus*). *Evolution*, 15 (1961), 259–62.

Genetical studies on the skeleton of the mouse. XXIX. Pudgy. *Genet. Res., Camb.*, 2 (1961), 384–93.

XXXII. The development of shaker with syndactylism. *Ibid.*, 3 (1962), 157–66.

HOLT, SARAH B., Dermatoglyphic patterns. *Genetical Variation in Human Populations*, ed. G. A. Harrison. London: Pergamon Press, 1961, 79–98.

Palm prints and their uses in medical biology. *Cerebral Palsy Bull.*, 3 (1961), 333–47.

Quantitative genetics of finger-print patterns. *Brit. med. Bull.*, 17 (1961), 247–50.

KADAM, K. M., Genetical studies on the skeleton of the mouse. XXXI. The muscular anatomy of syndactylism and oligosyndactylism. *Genet. Res., Camb.*, 3 (1962), 139–56.

KALMUS, H., Analogies of language to life. *Language and Speech*, 5 (1962), 15–25.

Distance and sequence of the loci for protan and deutan defects and for glucose-6-phosphate dehydrogenase deficiency. *Nature, Lond.*, 194 (1962), 215.

KARN, MARY N., Radiographic measurements of kidney section area. *Ann. hum. Genet., Lond.*, 25 (1962), 379–86.

LAWLER, SYLVIA D., MARSHALL, RUTH, Lewis and secretor characters in infancy. *Vox Sang.*, 6 (1961), 541–54.

A serological study of -D- heterozygotes in the same family. *Ibid.*, 7 (1962), 305–14.

MAYNARD-SMITH, SHEILA, PENROSE, L. S., SMITH, C. A. B., *Mathematical Tables for Research Workers in Human Genetics*. London : J. & A. Churchill, 1961. xii+74 pp.

MITTWOCH, URSULA, Inclusions of mucopolysaccharides in the lymphocytes of patients with gargoylism. *Nature, Lond.*, 191 (1961), 1315–16.

Properties of X chromosomes. *Lancet*, 2 (1961), 880.

The lymphocytes in gargoylism and in lipid storage diseases. *Proc. Lond. Conf. Sci. Study Ment. Defic.* 1960, 1 (1962), 323–8.

Nuclear segmentation of the neutrophils in heterozygous carriers of gargoylism. *Nature, Lond.*, 193 (1962), 1209–10.

(with Muir, Helen), Cytological and biochemical studies on gargoylism. (Abstract). *Ann. hum. Genet., Lond.*, 25 (1962), 484.

MITTWOCH, URSULA, DELHANTY, JOY D. A., Nuclear sex in triploid XXY human cells. *Lancet*, 2 (1961), 552.

PENROSE, L. S., Mongolism. *Clinical Aspects of Genetics*, ed. F. Avery Jones. London : Pitman Medical Publications, 1961, 86–96.

Parental age and non-disjunction. *Human Chromosomal Abnormalities*, ed. W. M. Davidson and D. Robertson Smith. London : Staples Press, 1961, 116–22.

Future possibilities in the genetic study of congenital malformations. *Proc. 1st Int. Conf. Congenital Malformations, London*, July 1960. Philadelphia and Montreal: J. B. Lippincott Company, 1961, 284–5.

Mongolism. *Brit. med. Bull.*, 17 (1961), 184–9.
Discussion on implications of recent genetic research on psychiatry. *Proc. R. Soc. Med.*, 54 (1961), 671–2.
Biological aspects. *Proc. Lond. Conf. Sci. Study Ment. Defic.* 1960, 1 (1962), 11–18.
Paternal age in mongolism. *Lancet*, 1 (1962), 1101.
Some clinical aspects of human cytogenetics. *Post Grad. med. J.*, 38 (1962), 284–5.

PENROSE, L. S., DELHANTY, JOY D. A., Familial Langdon Down anomaly with chromosomal fusion. *Ann. hum. Genet., Lond.*, 25 (1961), 243–52.

SMITH, C. A. B., Biometry. *Dictionary of Physics*, Vol. 1, ed. J. Thewlis. London: Pergamon Press, 1962, 438–40.

TRUSLOVE, GILLIAN M., Genetical studies on the skeleton of the mouse. xxx. A search for correlations between some minor variants. *Genet. Res., Camb.*, 2 (1961), 431–8.

VEALE, A. M. O., Genetics, carcinogenesis and family studies. *British Surgical Practice. Surgical Progress*, ed. the late Sir Ernest Rock Carling and Sir James Paterson Ross. London: Butterworth, 1961, 169–85.

GEOLOGY

HOLLINGWORTH, S. E., The climatic factor in the geological record. Address to Geological Society of London, Anniversary Meeting, 26 April 1961. *Quart. J. geol. Soc. Lond.*, 118 (1962), 1–21.

LLOYD, A. J., The microfaunas of some submarine samples from Weymouth Bay. *Phil. Trans.*, B, 244 (1961), 325–30.
Polymorphinid, miliolid and rotaliform foraminifera from the type Kimmeridgian. *Micropalaeontology*, 8 (1962), 369–83.

RUTLAND, R. W. R., Feldspar structure and the equilibrium between plagioclase and epidote: a reply. *Amer. J. Sci.*, 260 (1962), 153–7.

SMITH, A. J., The striated pavement and boulder bed at Irai, Maharashtra State, Central India. *Proc. Geol. Soc. Lond.*, No. 1590 (1960–61), 113–14.

STUMPFL, E. F., Some new platinoid-rich minerals, identified with the electron micro-analyser. *Miner. Mag.*, 32 (1961), 833–47.
Some aspects of the genesis of platinum deposits. *Econ. Geol.*, 57 (1962), 619–23.

WELLS, M. K. (with Hatch, F. H., Wells, A. K.), *Petrology of the Igneous Rocks.* (12th ed.). London: Murby, 1961. 515 pp.

HISTORY AND PHILOSOPHY OF SCIENCE

ARMITAGE A., History of astronomy. *Encyclopaedia Britannica*, 2 (1962), 581–90.
Nicolas-Louis de Lacaille. *Nature, Lond.*, 193 (1962), 1018–19.

GIBBS, F. W., Priestley's airs and waters. *J. Inst. Chem.*, 86 (1962), 5–11.

MCKIE, D., Some MS. copies of Black's chemical lectures. II. *Ann Sci.*, 15 (1959, publ. 1961), 65–73. III. *Ibid.*, 16 (1960, publ. 1962), 1–9.

SMEATON, W. A., Guyton de Morveau's course of chemistry in the Dijon Academy. *Ambix*, 9 (1961), 53–69.

WILKIE, J. S., Some reasons for the rediscovery and appreciation of Mendel's work in the first years of the present century. *The British Journal for the History of Science*, 1 (1962), 5–17.
Nägeli's work on the fine structure of living matter. I. *Ann. Sci.*, 16 (1960, publ. 1962), 11–41.

MATHEMATICS

ARCHBOLD, J. W., *Algebra* (2nd enlarged ed.). London: Sir Isaac Pitman and Sons, 1962. xx+479 pp.
(with Smith, C. A. B.), An extension of a theorem of König on graphs. *Mathematika*, 9 (1962), 9–10.

BELINFANTE, D. C., On viscous flow in a pipe with constrictions. *Proc. Camb. phil. Soc.*, 58 (1962), 405–16.

BOSANQUET, L. S., The summability of Laplace–Stieltjes integrals (II). *Proc. Lond. math. Soc.* (3), 11 (1961), 654–90.

BRIGGS, W. E., Some Abelian results for Dirichlet series. *Mathematika*, 9 (1962), 49–53.

COMMON, A. K., An investigation of possible bound Σ-hyperon-nucleon systems and their decay. *Nuovo Cim.*, 20 (1961), 1133–47.

DEAN, W. R. (with Adams, G. M.), Note on a biharmonic Green's function. *Mathematika*, 8 (1961), 159–69.

DU VAL, P., Four lectures on neighbouring points and singularities of surfaces. *R. C. Semin. mat. Messina*, 4 (1958–59), 76–86.
Neighbourhood manifolds and their parametrization. *Phil. Trans.*, 254 (1962), 441–520.

ESTERMANN, T., *Complex Numbers and Functions*. London: Athlone Press, 1962. viii+250 pp.
Another proof that bounded modular functions are constants. *Illinois J. Math.*, 6 (1962), 128–30.

GLADWELL, G. M. L., A refined estimate of the damping coefficient. *J. R. aero. Soc.*, 66 (1962), 124–5.
The approximation of uniform beams in transverse vibration by sets of masses elastically connected. *Proc. 4th U.S. Nat. Congr. Applied Mechanics* (1962).

GLADWELL, G. M. L., JOHNSON, D. C. (with Bishop, R. E. D.), Receptance series for systems possessing 'rigid-body' modes. *J. R. aero. Soc.*, 66 (1962), 394–7.

HOCKING, L. M., The flow of a conducting fluid past a magnetized cylinder at high magnetic Reynolds numbers. *Applied Sci. Res. Bull.*, 9 (1961), 230–44.
An almost inviscid geostrophic flow. *J. Fluid Mech.*, 12 (1962), 129–34.

KESTELMAN, H., Anticommuting linear transformations. *Canad. J. Math.*, 13 (1961), 614–24.

MICHAEL, D. H., The stability of a plane Alfvén wave of finite amplitude. *Mathematika*, 8 (1961), 133–41.
Energy considerations in the instability of a current-vortex sheet. *Proc. Camb. phil. Soc.*, 57 (1961), 628–37.

MURRAY, J. D., Strong cylindrical shock waves in magnetogasdynamics. *Mathematika*, 8 (1961), 99–120.

POWER, E. A., Positive versus impotent statements of laws. *Amer. J. Phys.*, 30 (1962), 71–2.

ROGERS, C. A., Uniform set functions. *Proc. roy. Soc.* A, 263 (1961), 149–60.
Dense scales of functions. *J. Australian Math. Soc.*, 2 (1961), 137–42.
The chance that a point should be near the wrong lattice point. *J. Lond. math. Soc.*, 37 (1962), 161–3.
Pairs of convex domains. *Ibid.*, 164–8.
(with Taylor, S. J.), On the law of the iterated logarithm. *Ibid.*, 145–51.
(with Erdös, P.), Covering space with convex bodies. *Acta arith.*, 7 (1962), 281–6.

WATSON, G. L., On the gaps between the values of a rational quadratic polynomial. *J. Lond. math. Soc.*, 37 (1962), 235–41.

PHYSICS

ABOU-HADID, L., HIGGINS, K., The equivalent two-body method for the hypertriton. *Proc. phys. Soc. Lond.*, 79 (1962), 34–41.

BENISTON, M. J., BULL, V. A., DAVIS, D. H., LASICH, W. B., RAINA, N. N. (with Evans, D., and eight others), Emission of fast deutrons and tritons from K^- mesons captured at rest in nuclear emulsion and a search for the hypernucleus (Σ^-n). *Nuovo Cim.*, 21 (1961), 740-6.

BENISTON, M. J., BURHOP, E. H. S., DAVIS, D. H. (with Jones, B. D., and five others), Production of hyperfragments from interactions of 800 Mev/c K^- mesons. *Proc. Rutherford Jubilee int. Conf.* (*Manchester, 1961*), ed. J. B. Birks. London: Heywood, 1961, 199–200.
On the production of hyperfragments from the interactions of 800 Mev/c K^- mesons with emulsion nuclei. *Proc. Aix-en-Provence int. Conf. Elementary Particles*, 1 (1961), 363–9.
Production of hyperfragments from the interactions of 800 Mev/c K^- mesons with emulsion nuclei. *Phys. Rev.*, 127 (1962), 236–9.

BENISTON, M. J., DAVIS, D. H. (with four others), On the trapping of Λ^0-hyperons following the absorptions at rest of Σ^--hyperons in emulsion nuclei. *Nuovo Cim.*, 23 (1962), 702–7.

BOWEN, P. J., NEWTON, A. C., The development of a photoelectric satellite tracker. *Space Research*, II, ed. H. C. van de Hulst, C. de Jager, A. F. Moore. Amsterdam: North-Holland, 1961, 55–9.

BOYD, R. L. F., The scientific programme of Skylark to mid-1960. *J. R. aero. Soc.*, 65 (1961), 531–2.
Rocket astronomy. *Proc. roy. Instn, G.B.*, 38 (1961), 175.
Satellite instrumentation. *Elect. Rev.* (1961), 990.
Plasma probes on space vehicles. *Proc. 5th int.* (*Munich, 1961*) *Conf. Ionization Phenomena in Gases*, 2. Amsterdam: North-Holland, 1962, 1387–96.
The first Anglo-American satellite. *J. Instn elect. Engrs*, 8 (1962), 10–13.
Space astronomy in Great Britain. *Nature, Lond.*, 193 (1962), 723–4.

BOYD, R. L. F. (with Kalmann-Bijl, H. K., Lagow, H., Poloslow, S. M., Priester, W.), Editors. *Cospar International Reference Atmosphere, 1961.* Amsterdam: North-Holland, 1961. xii+177 pp.

BROWN, G. B., The Newton letters, Vols I and II. *Ann. Sci.*, 16 (1960, publ. 1962), 117–24.

BUCKINGHAM, R. A., FOX, J. W., The coefficients of viscosity of atomic hydrogen from 25° to 300°K. *Proc. roy. Soc.* A, 267 (1962), 102–18.

BULL, V. A., GARBUTT, D. A., Proton-proton elastic scattering at 24 Gev/c and 19·8 Gev/c. *Proc. Aix-en-Provence int. Conf. Elementary Particles*, 1 (1961), 85–91.

BURHOP, E. H. S., *The Techniques of High Energy Physics*. Inaugural Lecture, University College London. H. K. Lewis, 1961. 21 pp., with illust.

Theory of collisions. *Quantum Mechanics*, Vol. 1, ed. D. R. Bates. New York: Academic Press, 1961, 299–436 (ch. IX).

The capture of K^- mesons in emulsion nuclei and the Y* isobar. *Proc. Aix-en-Provence int. Conf. Elementary Particles*, 1 (1961), 395–6.

CHANTRY, P. J., WHARMBY, J. S., HASTED, J. B., Attachment in oxygen and oxygen-nitrogen mixtures. *Proc. 5th int. (Munich, 1961) Conf. Ionization Phenomena in Gases*, 1. Amsterdam: North-Holland, 1962, 630–7.

COTTINGHAM, W. N. (with Amati, D., Vinh Mau, R.), On the nucleon-nucleon potential. *Proc. Aix-en-Provence int. Conf. Elementary Particles*, 1 (1961), 347–50.

DAVIS, D. H. (and five others), On the emission of neutral hyperons from K^- interactions at rest with emulsion nuclei. *Nuovo Cim.*, 22 (1961), 275–84.

DUFF, M. J. B., The Digiscat—a digitally controlled device for the measurement of multiple scattering in nuclear emulsions. *Nuclear Instrum. and Methods*, 15 (1962), 87–94.

EASLEA, B. R., Proton scattering by copper at 10 Mev. *Proc. phys. Soc. Lond.*, 78 (1961), 1285–96.

ESTEN, M. J., GRIFFITH, T. C., LUSH, G. J., METHERINGHAM, A. J., Fast neutrons from p–d collisions at 135 Mev. *Proc. Rutherford Jubilee int. Conf. (Manchester, 1961)*, ed. J. B. Birks. London: Heywood, 1961, 163–4.

GROVES, G. V., Correlation of upper atmosphere air density with geomagnetic activity, November 1960. *Space Research*, II, ed. H. C. van de Hulst, C. de Jager, A. F. Moore. Amsterdam: North-Holland, 1961, 751–3.

Latitude and diurnal variations of air densities from 190 to 280 Km. as derived from the orbits of Discoverer satellites. *Proc. roy. Soc.* A, 263 (1961), 212–16.

Methods of calculating atmospheric densities from satellite orbits. *Planet. Space Sci.*, 5 (1961), 314–20.

HAMILTON, J., MENOTTI, P., SPEARMAN, T. D., WOOLCOCK, W. S., Low energy pion-nucleon scattering and pion-pion interactions. *Proc. Aix-en-Provence int. Conf. Elementary Particles*, 1 (1961), 351–4.

HAMILTON, J., SPEARMAN, T. D., WOOLCOCK, W. S., S-wave pion-nucleon scattering and pion-pion interactions. *Ann. Phys.*, 17 (1962), 1–40.

HASTED, J. B., Charge transfer and collisional detachment. *Atomic and Molecular Processes*, ed. D. R. Bates. New York: Academic Press, 1962, 696–720 (ch. XVIII).

Charge changing collisions. *Proc. 5th int. (Munich, 1961) Conf. Ionization Phenomena in Gases*, 1. Amsterdam: North-Holland, 1962, 19–24.

HASTED, J. B., LEE, A. R., The near adiabatic criterion in charge transfer collisions. *Proc. phys. Soc. Lond.*, 79 (1962), 702–9.

HEDDLE, D. W. O., Ultra-violet astronomy from rockets and satellites. *J. Brit. Instn Radio Engrs*, 22 (1961), 346–8.

(for Space Research Group, U.C.L.), Observations in the southern hemisphere of ultra-violet light from celestial objects. *Nature, Lond.*, 193 (1962), 861.

HEYMANN, F. F., Positronium. *Endeavour*, 20 (1961), 225–31.

HEYMANN, F. F., OSMAN, P. E., VEIT, J. J. (with Williams, W. F.), Measurements of quenching of ortho-positronium in gases. *Proc. phys. Soc. Lond.*, 78 (1961), 1038–47.

HILL, R. D., A note on the capture of negative mesons in photographic nuclear emulsions. *Nuovo Cim. Suppl.*, 19 (1961), 83–90.

HUMBERSTON, J. W., Low energy elastic scattering of neutrons by deuterons. *Proc. phys. Soc. Lond.*, 78 (1961), 1157–62.

ISLAM, M., HASTED, J. B., GILBODY, H. B., IRELAND, J. V., Charge transfer of doubly charged ions. *Proc. phys. Soc. Lond.*, 79 (1962), 1118–23.

JENNINGS, R. E., RAND, R. E., Elimination of the dead space between channels in a Hutchinson-Scarrott pulse height analyser. *Nuclear Instrum. and Methods*, 13 (1961), 97–8.

KENNEDY, J., SPEARMAN, T. D., Singularities in partial-wave amplitudes for two ingoing and two outgoing particles. *Proc. Aix-en-Provence int. Conf. Elementary Particles*, 1 (1961), 337–42; *Phys. Rev.*, 126 (1962), 1596–602.

KUMAR, R. C., Elastic proton-proton scattering at high energies. Interpretation of results at 8·5 Gev. *Nuovo Cim.*, 24 (1962), 9–20.

LASKAR, W. (with Burke, P. G.), Four nucleon reactions with central forces. *Proc. phys. Soc. Lond.*, 77 (1961), 49–58.

LASKAR, W., TATE, C., PARDOE, B. (with Burke, P. G.), Two channel five nucleon reactions with central forces. *Proc. phys. Soc. Lond.*, 77 (1961), 1014–23.

LEADER, E., The optical model in π-nuclear scattering. *Nuclear Phys.*, 26 (1961), 177–92.

(with Amati, D., Vitale, B.), The low energy nucleon-nucleon interaction. *Proc. Rutherford Jubilee int. Conf.* (*Manchester, 1961*), ed. J. B. Birks. London: Heywood, 1961, 177–8.

LEADER, E. (with Hearn, A. C.), Fixed-angle dispersion relations for nucleon Compton scattering. I. *Phys. Rev.* 126 (1962), 789–805.

LEE, A. R., HASTED, J. B., Ionization of atoms by protons. *Proc. phys. Soc. Lond.*, 79 (1962), 1049–57.

MARTIN, A. D., Optical model potential for K^- meson-nucleus scattering. *Nuovo Cim.*, 21 (1961), 88–97.

MASSEY, H. S. W., Space Research since Sputnik I: an assessment. *New Scientist*, 12 (1961), 28–30.

The scientific exploration of space. *Discovery*. London: Methuen for Granada T.V. Network, 1961, 114–22.

Upper atmosphere research, vehicle and instrumentation problems. *J. R. aero. Soc.*, 65 (1961), 523–6.

(with Quinton, A. R.), *Basic Laws of Matter*. New York: Herald Books, 1961. 178 pp.

METHERINGHAM, A. J., WILLITTS, T. R., A balanced ionization chamber for accurate beam location. *Nuclear Instrum. and Methods*, 15 (1962), 297–9.

SEATON, M. J., Complex atoms. *Quantum Mechanics*, Vol. II, ed. D. R. Bates. New York: Academic Press, 1961, 1–85 (ch. I).

The theory of excitation and ionization by electron impact. *Atomic and Molecular Processes*. ed. D. R. Bates. New York: Academic Press, 1962, 374–420 (ch. XI).

The impact parameter method for electron excitation of optically allowed atomic transitions. *Proc. phys. Soc. Lond.*, 79 (1962), 1105–17.

SEATON, M. J., PEACH, G., The determination of phases of wave functions. *Proc. phys. Soc. Lond.*, 79 (1962), 1296–7.

SOMERVILLE, W. B., The importance of conservation conditions in distorted wave calculations. *Proc. phys. Soc. Lond.*, 78 (1961), 695–7.
(with Stewart, A. L.), The correlation energies of the helium sequence. *Ibid.*, 80 (1962), 97–102.

WILLMORE, A. P., The British programme of space research. *Bull. Inst. Phys. phys. Soc.*, 13 (1962), 17–18.

WOOLCOCK, W. S., Pion-nucleon phase shifts up to about 350 Mev. *Proc. Aix-en-Provence int. Conf. Elementary Particles*, 1 (1961), 461.
The parameters of low energy pion physics. *Ibid.*, 459–60.

PSYCHOLOGY

BANKS, E. K. CHARLOTTE, Fighting facts. *The Twentieth Century*, 170 (1962), 43.

DE MONCHAUX, CECILY, Psychological aspects of world affairs. *Yearbook of World Affairs*, 16 (1962), 281–8.

DIXON, N. F. (with Haider, M.), Influences of training and fatigue on the continuous recording of a visual differential threshold. *Brit. J. Psychol.*, 52 (1961), 227–37.
(with Haider, M.), Changes in the visual threshold as a function of subception. *Quart. J. exp. Psychol.*, 13 (1961), 229.
(with Lear, T. E.), Perceptual regulation and mental disorder. *J. ment. Sci.*, 108 (1962), 356–61.

DREW, G. C., Alcohol and road safety. *Twelfth Ernest Winterton Memorial Lecture* (1961), 1–12.
Alcohol and skilled performance. *Proc. roy. Instn, G.B.*, 38 (1961), 463–78.

GREEN, R. T., The absolute threshold of electric shock. *Brit. J. Psychol.*, 53 (1962), 107–16.
The absolute threshold of electric shock. *Nature, Lond.*, 195 (1962), 1303.

KHAÏRY, MÉLÈK (with Morgan, T. B., Yudkin, J.), The choice of diets of differing caloric density by normal and hyperphagic rats. *Proc. Nutr. Soc.*, 20 (1961), xxxix.

LEGGE, D. (with Steinberg, Hannah), Actions of a mixture of amphetamine and a barbiturate in man. *Brit. J. Pharmacol.*, 18 (1962), 490–500.

LEGGE, D., SUMMERFIELD, A. (with Steinberg, Hannah), Measures of handwriting as indices of drug effects. *Bull. Brit. Psychol. Soc.*, 47 (1962), 11A.

LONG, HAZEL (with Elliott, C. J. R., Green, R. A., Howells, T. H.), Recovery after intravenous barbiturate anaesthesia. *Lancet*, 2 (1962), 68–70.

SERGEAN, R. (with Belbin, E.), The clothing industry. *Industry and Careers*, ed. D. E. Wheatley. London : Iliffe, 1961, 475–81.
(with de la Mare, G. C.), Two methods of studying changes in absence with age. *Occup. Psychol.*, 35 (1961), 245–52.
(with de la Mare, G. C.), Validity of prediction based on cross-sectional analysis. *Nature, Lond.*, 192 (1961), 4809.

SHEPHERD, R. D., Acclimatisation to heat and performance at tests of reasoning, memory and vigilance. Medical Research Council, *Army Personnel Research Committee Report* (1962), 238–93.
(with Barlow, J.), The effects of travel fatigue and tropical conditions on the military efficiency of unacclimatised parachute troops during the first three days. *Ibid.* (1961), 1–26.

(with MacBain, G., Cole, G. W. D.), Pneumoconiosis in a group of large iron and light alloy foundries. *Trans. Assoc. Industrial Medical Officers*, 12 (1962), 17–28.

SHIMMIN, SYLVIA B. N., Extra-mural factors influencing behaviour at work. *Bull. Brit. Psychol. Soc.*, 47 (1962), 64.

SUMMERFIELD, A., Experimental analysis of S–R compatibility by means of drugs. *Proc. 14th int. Congr. appl. Psychol. Copenhagen*, 1961. Copenhagen University, 1961, 214–15.

Drugs as research tools in psychology: serial order and coding. *Acta Psychol., Hague*, 19 (1961), 778–80; *Proc. 16th int. Congr. Psychol.* (*Bonn* 1960). Amsterdam: North-Holland, 1962, 778–80.

Statistical inference. *Bull. Brit. Psychol. Soc.*, 46 (1962), 23–8.

(with Wasim, M.), Experimental investigations of proactive inhibition and recall. *Acta Psychol., Hague*, 19 (1961), 351–2; *Proc. 16th int. Congr. Psychol.* (*Bonn* 1960). Amsterdam: North-Holland, 1962, 351–2.

WALKER, J., The visibility of upper and lower case lettering. *Bull. Brit. Psychol. Soc.*, 47 (1962), 33 A.

WASON, P. C., The retention of material presented through precis. *J. Communication*, 12 (1962), 36–43.

ZAJACZKOWSKA, ANNA, Constant velocity in lifting as a criterion of muscular skill. *Proceedings, International Biophysics Congress*, Stockholm, 1961, 278; *Ergonomics*, 5 (1962), 337–56.

STATISTICS

BARTLETT, M. S., *Probability, Statistics and Time*. Inaugural Lecture, University College London. H. K. Lewis, 1961. 21 pp.

Essays on Probability and Statistics. London: Methuen, 1962. viii + 127 pp.

The classification and properties of various types of statistical fluctuations in physics. *Bull. int. Statist. Inst.*, 38 (1961), 429–34.

Monte Carlo studies in ecology and epidemiology. *Proc. 4th Berkeley Symp. on Math. Statist. & Prob.*, 4 (1961), 39–55.

BARTON, D. E., DAVID, F. N., *Combinatorial Chance*. London: Griffin, 1962. ix + 356 pp.

Analysis of chromosome patterns in the normal cell. *Ann. hum. Genet., Lond.*, 25 (1962), 325–30.

BARTON, D. E., MALLOWS, C. L., The randomization bases of the problem of the amalgamation of weighted means. *J. R. statist. Soc.*, 23 (1961), 423–33.

DAVID, F. N. (with Fix, E.), Rank correlation and regression in a non normal surface. *Proc. 4th Berkeley Symp. on Math. Statist. & Prob.*, 1 (1961), 177–97.

DAVID, F. N., PEARSON, E. S., *Elementary Statistical Exercises* (rev. ed.). Cambridge University Press, 1961. viii + 108 pp.

JOHNSON, N. L., *Statistical Exercises*. Pt II. *Solutions*. Department of Statistics, University College, London, 1962. 106 pp.

Sequential analysis, a survey. *J. R. statist. Soc.* A, 124 (1961), 372–411.

A simple theoretical approach to cumulative sum control charts. *J. Amer. statist. Ass.*, 56 (1961), 835–40.

Estimation of sample size. *Technometrics*, 4 (1962), 59–67.

The folded normal distribution: estimation by maximum likelihood. *Ibid.*, 249–58.

(with Leone, F. C.), Cumulative sum control charts; mathematical principles applied to their construction and use. *Industr. Qual. Contr.*, 18 (12) (1962), 15–21.

KSHIRSAGAR, A. M., The goodness-of-fit of a single (non-isotropic) hypothetical principal component. *Biometrika*, 48 (1961), 397–407.

A note on direction and collinearity factors in canonical analysis. *Ibid.*, 49 (1962), 255–9.

MERRINGTON, M., *Biometrika Index*. London: Biometrika, 1962. iv + 39 pp.

PEARSON, E. S., SNOW, B. A. S., Tests for rank correlation coefficients III. Distribution of the transformed Kendall coefficient. *Biometrika*, 49 (1962), 185–91.

SAW, J. G., Estimation of the normal population parameters given a type I censored sample. *Biometrika*, 48 (1961), 367–77.

The bias of the maximum likelihood estimates of the location and scale parameters given a type II censored sample. *Ibid.*, 448–51.

Efficient moment estimators when the variables are dependent with special reference to type II censored normal data. *Ibid.*, 49 (1962), 155–61.

SNOW, B. A. S., The third moment of Kendall's tau in normal samples. *Biometrika*, 49 (1962), 177–83.

YOUNG, D. H., Quota fulfilment using unrestricted random sampling. *Biometrika*, 48 (1961), 333–42.

Two alternatives to the standard χ^2 test of the hypothesis of equal cell frequencies. *Ibid.*, 49 (1962), 107–16.

ZOOLOGY AND COMPARATIVE ANATOMY

BLEST, A. D., Effect of pupal brain surgery on the rocking response of *Automeris*. *Nature, Lond.*, 192 (1961), 373–4.

Some modifications of Holmes's silver method for insect central nervous systems. *Quart. J. micr. Sci.*, 102 (1961), 413–17.

BOYCOTT, B. B. (with Robins, M. W.), The care of young red-eared terrapins (*Pseudemys scripta elegans*) in the laboratory. *Brit. J. Herpet.*, 2 (1961), 206–10.

BRENT, L., The phenomenon of immunological enhancement with special reference to immunological tolerance. *Il Cancro*, 14 (1961), 507–27.

BRENT, L., GOWLAND, G., Cellular dose and age of host in the induction of tolerance. *Nature, Lond.*, 192 (1961), 1265–7.

BRENT, L., MEDAWAR, P. B., Quantitative studies on tissue transplantation immunity. v. The role of antiserum in enhancement and desensitization. *Proc. roy. Soc.* B, 155 (1961), 392–416.

BRENT, L., MEDAWAR, P. B., RUSZKIEWICZ, M., Serological methods in the study of transplantation antigens. *Brit. J. exp. Path.*, 42 (1961), 464–77.

CLARKE, JEAN M., MAYNARD SMITH, J., Two phases of ageing in *Drosophila subobscura*. *J. exp. Zool.*, 38 (1961), 679–84.

COMFORT, A., *Darwin and the Naked Lady: Discursive Essays on Science and Art*. London: Routledge & Kegan Paul, 1961. vi + 170 pp.

A life table for Arabian mares. *J. Geront.*, 17 (1961), 14.

The position of fundamental age studies. *Amer. Heart J.*, 62 (1961), 293–300.

The expected rate of senescence and age dependent mortality in fish. *Nature, Lond.*, 191 (1961), 822–3.

Age and reproduction in female Lebistes. *Gerontologia*, 5 (1961), 146–9.

The longevity and mortality of a fish (*Lebistes reticulatus* Peters) in captivity. *Ibid.*, 209–22.
The lifespan of animals. *Sci. Amer.*, 205 (1961), 108–19.
Some survival curves in birds in the London Zoo. *The Ibis*, 104 (1961), 115–17.
FISHER, R. C., The effect of multiparasitism on populations of two parasites and their host. *Ecology*, 43 (1962), 314–16.
FOX, H., The occipital and anterior spinal nerves in the larval urodele *Salamandra maculosa*. *Brit. J. Herpet.*, 2 (1961), 211–13.
The segmentation of components in the hind region of the head of *Neoceratodus* and their relation to the pronephric tubules. *Acta anat.*, 47 (1961), 156–63.
A study of the evolution of the amphibian and dipnoan pronephros by an analysis of its relationship with the anterior spinal nerves. *Proc. zool. Soc., Lond.*, 138 (1962), 225–56.
Growth and degeneration of the pronephric system of *Rana temporaria*. *J. Embryol. exp. Morph.*, 10 (1962), 103–14.
Degeneration of the remaining pronephros of *Rana temporaria* after unilateral pronephrectomy. *Ibid.*, 224–30.
MAYNARD SMITH, J., SONDHI, K. C., The arrangement of bristles in *Drosophila*. *J. Embryol. exp. Morph.*, 9 (1961), 661–72.
MEDAWAR, P. B., Peter Alfred Gorer, 1907–1961. *Biographical Memoirs of Fellows of the Royal Society*, 7 (1961), 95–109.
Principle and paradox in Eugenics. (Abstract of Woodhull Lecture.) *Proc. roy. Instn, G.B.*, 38 (1961), 493–501.
D'Arcy Thompson and *Growth and Form*. *Perspectives in Biology and Medicine*, 5 (1962), 220–32.
ROBINSON, PAMELA L., Growing points in science. VI. The mystery of extinction. *Times Educ. Suppl.* (1 Apr. 1960), 648.
(with Jain, Sohan Lall, and Roy Chowdhury, Tapan K.), A new vertebrate fauna from the early Jurassic of the Deccan, India. *Nature, Lond.*, 194 (1962), 755–7.
VICKERMAN, K., Electron microscopy of a trypanosomatid kinetoplast and associated organelles. *Trans. Roy. Soc. trop. Med. Hyg.*, 55 (1961), 311.
Observations on the life-cycle of *Phytomonas elmassiani* in East Africa. *J. Protozool.*, 9 (1962), 26–33.
Patterns of cellular organisation in *limax* amoebae: an electron microscope study. *Exp. Cell Res.*, 26 (1962), 497–519.
(with Cunningham, M. P.), Studies on antigenic variation in trypanosomes of the *brucei* group. *Ann. trop. Med. Parasit.*, 55 (1961), 142–3.
Antigenic analysis in the *Trypanosma brucei* group using the agglutination reaction. *Trans. Roy. Soc. trop. Med. Hyg.*, 56 (1962), 48–59.
WELLS, G. P., A new lugworm from Woods Hole, hitherto included in *Arenicola cristata* (Polychaeta). *Proc. zool. Soc., Lond.*, 137 (1961), 1–11.
The warm-water lugworms of the world (Arenicolidae, Polychaeta). *Ibid.*, 138 (1962), 331–53.

FACULTY OF ENGINEERING

CHEMICAL ENGINEERING

BARNARD, J. A. (with Cullis, C. F.), The rates of chemical reactions in the diethyl-ether diffusion flames. *8th Symp. (International) on Combustion.* Baltimore: The Williams and Wilkins Company, 1962, 481–6.

BARNARD, J. A., HAWTIN, P., The gaseous oxidation of para-xylene. *Combustion and Flame*, 5 (1961), 249–56.

BARNARD, J. A., KARAYANNIS, N., The determination of some aliphatic alcohols and aldehydes by oxidation with acid potassium permanganate. *Analyt. chim. acta*, 26 (1962), 253–8.

CHAYEN, R., HAMPSON, SHIRLEY E., Lipoproteins in formalin extracts of human lungs. *Biochem. J.*, 83 (1962), 27–8P.

CHAYEN, R., HAMPSON, SHIRLEY E., DONALD, M. B., A chemical study of the lipid-protein complexes extractable from normal and cancerous human lungs. *Rep. Brit. Emp. Cancer Campaign*, 39 (1961), 580–2.

DONALD, M. B., *Elizabethan Monopolies—The History of the Company of Mineral and Battery Works 1568–1604.* Edinburgh and London: Oliver and Boyd, 1961. xv+256 pp.

MULLIN, J. W., Recent advances in crystallization. *Brit. Chem. Engng*, 7 (1962), 12–17.

MULLIN, J. W., RAVEN, K. D., Influence of mechanical agitation on the nucleation of some aqueous salt solutions. *Nature, Lond.*, 195 (1962), 35–8.

MULLIN, J. W., TRELEAVEN, C. R., Solid-liquid mass transfer in multiparticulate systems. *3rd Congr. European Federation of Chemical Engineering.* Symposium on 'Interaction between Fluids and Particles', 1962, B. 66–73.

MUNDEN, J. E., Nucleotides for biochemical research. *Industr. Chem. Mfr*, 38 (1962), 183–5.

TRELEAVEN, C. R., The dissolution of solids in liquids. *Industr. Chem. Mfr*, 38 (1962), 231–8.

CIVIL AND MUNICIPAL ENGINEERING

ALLISON, I. M., The elastic stress concentration factors in shouldered shafts. *Aeronaut. Quart.*, xiii (1962), 129–42.

BRAIN, R., Traffic simulation for urban areas. *Traffic Engineering and Control*, 3 (1962), 534–7.

Vehicle speed estimation at a right-angled at-grade junction. *Surveyor*, CXXI (1962), 789–91.

Geometry of the inertia circle. *The Engineer*, 212 (1961), 511–13.

CHILVER, A. H., Structural problems in the use of cold-formed steel sections. *Proc. Instn Civ. Engrs*, 20 (1961), 233–58.

IVES, K. J., New concepts in filtration. I. Introduction and practical concepts. *Water and Water Engineering*, 65 (1961), 307–9.

II. Theoretical concepts. *Ibid.*, 341–4.

III. Surface force concepts, experimental concepts and conclusions. *Ibid.*, 385–8.

Industrial water treatment: practice and principle reviewed. *Effluent and Water Treatment Journal*, 2 (1962), 26–31.

A theory of the functioning of deep filters. *3rd Congr. European Federation of Chemical Engineering, London* (1962), C29–C37.

KEMP, K. O., Preparation of calibration curves and the birefringence properties of Hectorite suspensions. *Civ. Engng, Lond.*, 57 (1962), 767.

The relationship between streaming birefringence and non-parallel flow and its use in the analysis of flows. *Ibid.*, 901.

KEMP, P. H., A model study of the behaviour of beaches and groynes. *Proc. Instn Civ. Engrs*, 22 (1962), 191–210.

ELECTRICAL ENGINEERING

BARLOW, H. M., Introductory lecture to Conf. on Microwave Measurement Techniques. *Proc. Instn elect. Engrs*, B, suppl. 23 (1962), 639.

A new approach to the measurement of high frequency power by Hall effect in a semiconductor. Conf. on Microwave Measurement Techniques. *Ibid.*, 746.

An improved resonant cavity method of measuring H.F. losses in materials. Conf. on Microwave Measurement Techniques. *Ibid.*, 848.

A proposed new method of measuring microwave power and impedance using Hall effect in a semiconductor. *Ibid.*, 109 (1962), 286.

BARLOW, H. M., KRISHNA, K. V. G., A Hall effect microwave mixer. *Proc. Instn elect. Engrs*, B, 109 (1962), 131.

BRAILSFORD, F., Ferromagnetic theory. *Permanent Magnetism*, ed. D. Hadfield. London: Iliffe, 1962, 43–59.

BRAILSFORD, F., MAZZA, V. R., The alternating magnetic flux distribution in right-angled corners of transformer laminations. *Proc. Instn elect. Engrs*, A, 109 (1962), 173.

BROOKES, B. C., Philosophy of science. *Nature, Lond.*, 192 (1961), 508–9.

HARRIS, G. F., SIMS, G. D., STEPHENSON, I. M., The magnetic triode. *Electronic Technology*, 39 (1962), 27–30.

HORSLEY, A. W., SIMS, G. D., On the steady state theory of linear magnetrons. *J. Electronics and Control*, 12 (1962), 243–6.

KOIKE, R., BARLOW, H. M., Microwave measurements on the magnetoresistance effect in semiconductors. *Proc. Instn elect. Engrs*, B, 109 (1962), 137.

SIMS, G. D., Microwave measurement techniques. *Nature, Lond.*, 192 (1961), 408–10.

SIMS, G. D., STEPHENSON, I. M., WONG, M. Y., Frequency locking of backward wave oscillators. *J. Electronics and Control*, 11 (1961), 445–57.

TAYLOR, W. K., An experimental control system with continuous automatic optimization. *Automatic and Remote Control*, 2 (1961), 686–93.

MECHANICAL ENGINEERING

BISHOP, R. E. D., On the theory of resonance testing. *Strojnicky Časopis*, Slovenskej Akademie Vied, 3 (1961), 129–38.

Note on a torsional failure caused by gear inaccuracy. *J. Mech. Eng. Sci.*, 4 (1962), 188–9.

Basic causes of rough riding on railways. *Engineering, Lond.*, 194 (1962), 29–30.

(with Gladwell, G. M. L., Johnson, D. C.), Receptance series for systems possessing 'rigid body' modes. *J. R. aero. Soc.*, 66 (1962), 394–7.

DAVIES, R. M., Discussion on 'Information theory as the basis for thermostatics and thermodynamics' by M. Tribus. *J. appl. Mech.*, 28 (1961), 465–7.

LAMBERT, T. H., Elastic stresses due to an interference fit pin in a rectangular plate of finite width. *J. Mech. Eng. Sci.*, 3 (1961), 236–40.

Experimenting with basic servomechanisms. *J. Instrum. Soc. Amer.*, 8 (1961), 50–2.

(with Brailey, R. J.), The influence of the coefficient of friction on the elastic stress concentration factor for a pin-jointed connection. *Aeronaut. Quart.*, xiii (1962), 17–29.

PARKINSON, A. G., BISHOP, R. E. D., Vibration and balancing of rotating continuous shafts. *J. Mech. Eng. Sci.*, 3 (1961), 200–13.

PENDERED, J. W., BISHOP, R. E. D., A critical introduction to some industrial resonance testing techniques. *Aeronautical Research Council Report* No. 23537 (Feb. 1962), 33 pp.

The extraction of data for a sub-system from resonance test results. *Ibid.*, No. 23538 (Feb. 1962), 13 pp.

PHOTOGRAMMETRY AND SURVEYING

AMER, F., Digital block adjustment. *Photogrammetric Record*, 19 (1962), 34–49.

THOMPSON, E. H., The theory of the method of least squares. *Photogrammetric Record*, 19 (1962), 53–65.

FACULTY OF MEDICAL SCIENCES

ANATOMY AND EMBRYOLOGY

ABERCROMBIE, M., JAMES, D. W., NEWCOMBE, J. F., The role of contraction in the repair of excised wounds of skin. *Wound Healing. Proc. Symp. 12–13 Nov. 1959, R. Coll. Surg. Eng.* London: Pergamon Press, 1961, 10–25.

AITKEN, J. T., BRIDGER, J. E., Neuron size and neuron population density in the lumbosacral region of the cat's spinal cord. *J. Anat., Lond.*, 95 (1961), 38–53.

AITKEN, J. T., THOMAS, P. K., Retrograde changes in fibre size following nerve section. *J. Anat., Lond.*, 96 (1962), 121–9.

ARMSTRONG, J., QUILLIAM, T. A., Nerve endings in the mole's snout. *Nature, Lond.*, 191 (1961), 1379–80.

Can the Herbst corpuscle aid studies of peripheral receptor mechanisms? *J. Physiol.*, 161 (1961), 4-5P.

BELLAIRS, R., Cell death in chick embryos as studied by electron microscopy. *J. Anat., Lond.*, 95 (1961), 54–60.

The structure of the yolk of the hen's egg as studied by electron microscopy. I. The yolk of the unincubated egg. *J. biophys. biochem. Cytol.*, 11 (1961), 207–25.

(with New, D. A. T.), Phagocytosis in the chick blastoderm. *Exp. Cell Res.*, 26 (1962), 275–9.

CHARLTON, C. A. C., HIGTON, D. I. R., JAMES, D. W. (with Nicol, A. R., Stewart, J. O.), Wound contraction in the guinea-pig. *Brit. J. Surg.*, 49 (1961), 96–102.

CRAGG, B. G., Olfactory and other afferent connections of the hippocampus in the rabbit, rat, and cat. *Exp. Neurol.*, 3 (1961), 588–600.
The role of the habenula in the respiratory response of the rabbit to warmth or to restraint. *Ibid.*, 4 (1961), 115–33.
Centrifugal fibers to the retina and olfactory bulb, and composition of the supraoptic commissures in the rabbit. *Ibid.*, 5 (1962), 406–27.
CRAGG, B. G., THOMAS, P. K., Changes in conduction velocity and fibre size proximal to peripheral nerve lesions. *J. Physiol.*, 157 (1961), 315–27.
CURTIS, A. S. G., Cell contact and adhesion. *Biol. Rev.*, 37 (1962), 82–129.
Cortical grafting in *Xenopus laevis. Symp. on Germ Cells and Development, Inst. Intern. Embryol. and Fondazione A. Baselli, 1960.* Pavia: Fusi, 1961, 440.
DEUCHAR, E. M., Enhancement of ATP-ase activity, somite segmentation rate and aggregation of somite cells of *Xenopus* embryos by treatment with ATP. *Exp. Cell Res.*, 23 (1961), 21–8.
Amino-acid activation in tissues of early embryos. *Nature, Lond.*, 191 (1961), 1006–7.
The distribution of free leucine and its uptake into protein in *Xenopus laevis* embryos. *Symp. on Germ Cells and Development, Inst. Intern. Embryol. and Fondazione A. Baselli, 1960.* Pavia: Fusi, 1961, 537–44.
Amino-acid activation in embryonic tissues of *Xenopus laevis*. I. Increased ^{32}P exchange between pyrophosphate and adenosine triphosphate in the presence of added L-leucine. *Exp. Cell Res.*, 25 (1961), 364–73.
II. Hydroxamic acid formation in the presence of L-leucine. *Ibid.*, 26 (1962), 568–70.
Cell differentiation and interaction. *Nature, Lond.*, 194 (1962), 1027–8.
DEVIS, R., JAMES, D. W., Electron microscopic appearance of close relationships between adult guinea pig fibroblasts in tissue culture. *Nature, Lond.*, 194 (1962), 695–6.
DILLY, P. N., Electron microscope observations of the receptors in the sensory vesicle of the ascidian tadpole. *Nature, Lond.*, 191 (1961), 786–7.
A comparison of the cytoplasmic organisation of glial and neuronal connections in the goldfish CNS. *Cytology of Nervous Tissue. Proc. anat. Soc., Nov. 1961*, London: Taylor & Francis, 1962, 92–4.
(with Brown, R.), A thermo-electric freezing microtome table. *J. Physiol.*, 161 (1961), 1P.
EVANS, D. H. L., GRAY, E. G., Changes in the fine structure of ganglion cells during chromatolysis. *Cytology of Nervous Tissue. Proc. anat. Soc., Nov. 1961*, London: Taylor & Francis, 1962, 71–4.
GRAY, E. G., The granule cells, mossy synapses and purkinje spine synapses of the cerebellum: light and electron microscope observations. *J. Anat., Lond.*, 95 (1961), 345–56.
A morphological basis for pre-synaptic inhibition? *Nature, Lond.*, 193 (1962), 82–3.
Electron microscopy of synaptic organelles of the central nervous system. *Proc. Internat. Congr. Neuropathology, 4–8 Sept. 1961, Munich.* Stuttgart: Georg Thieme, 1962, 57–61.
(with Whittaker, V. P.), The isolation of nerve endings from brain: an electron-microscopic study of cell fragments derived by homogenization and centrifugation. *J. Anat., Lond.*, 96 (1962), 79–88.
GRAY, E. G., GUILLERY, R. W., The basis for silver staining of synapses of the

mammalian spinal cord: a light and electron microscope study. *J. Physiol.*, 157 (1961), 581–8.

GUILLERY, R. W., Fibre degeneration in the efferent mamillary tracts of the cat. *Cytology of Nervous Tissue. Proc. anat. Soc., Nov. 1961.* London: Taylor & Francis, 1962, 64–7.

HAMLYN, L. H., The fine structure of the mossy fibre endings in the hippocampus of the rabbit. *J. Anat., Lond.*, 96 (1962), 112–20.

KIDD, M., Electron microscopy of the inner plexiform layer of the retina. *Cytology of Nervous Tissue. Proc. anat. Soc., Nov. 1961.* London: Taylor & Francis, 1962, 88–91.

Electron microscopy of the inner plexiform layer of the retina in the cat and the pigeon. *J. Anat., Lond.*, 96 (1962), 179–87.

MOODY, M. F., Evidence for the intraocular discrimination of vertically and horizontally polarized light by *Octopus. J. exp. biol.*, 39 (1962), 21–30.

PLOMLEY, N. J. B., Tasmanian aboriginal material in collections in Europe. *J. R. anthrop. Inst.*, 91 (1961), 221–7.

QUILLIAM, T. A., Growth, degrowth and regrowth in the Herbst corpuscle. *Anat. Rec.*, 142 (1962), 322.

Policy and teaching practice in a department of anatomy. *Methods of Learning and Techniques of Teaching*, ed. J. R. Ellis. London: Pitman, 1962, 33–42.

Experimentally induced modifications in the time course of remyelination. *Anat. Anz.*, 109 (1962), 749–58.

Experimentally induced modifications in the time course of remyelination. *Verhandlungen 1st European Congr. Anat., 1960, Strasbourg.* Jena: Gustav Fischer, 1962, 749–58.

QUILLIAM, T. A., ARMSTRONG, J., Structural and denervation studies of the Herbst corpuscle. *Cytology of Nervous Tissue. Proc. anat. Soc., Nov. 1961.* London: Taylor & Francis, 1962, 33–8.

VENNING, P., Radiological studies of variation in ossification of the foot. III. Cone shaped epiphyses of the proximal phalanges. *Amer. J. phys. Anthrop.*, 19 (1961), 131–6.

IV. The length and growth of bones of the foot in relation to morphology. *Ibid.*, 137–45.

VICKERMAN, K., (of the Department of Zoology), Electron microscopy of a trypanosomatid kinetoplast and associated organelles. *Trans. Roy. Soc. trop. Med. Hyg.*, 55 (1961), 311.

Patterns of cellular organisation in *limax* amoebae: an electron microscope study. *Exp. Cell Res.*, 26 (1962), 497–519.

WEBSTER, K. E., Cortico-striate interrelations in the albino rat. *J. Anat., Lond.*, 95 (1961), 532–44.

WILKINS, B. R., Symbolic logic for computer circuit application. *Electron. Tech.* (1961), 317–24.

Ferrite cores as logical elements in digital computers. *Ibid.* (1961), 428–34.

YOUNG, J. Z., Eyes, colours and shapes. *Proc. roy. Instn G.B.*, 38 (1961), 401–13.

The retina of cephalopods and its degeneration after optic nerve section. *Phil. Trans.*, B, 245 (1962), 1–18.

The optic lobes of *Octopus vulgaris. Ibid.*, 19–58.

Courtship and mating by a coral reef octopus (*O. horridus*). *Proc. zool. Soc. Lond.*, 138 (1962), 157–62.

Memory mechanisms of the brain. The 36th Maudsley Lecture. *J. ment. Sci.*, 108 (1962), 119–33.

BIOCHEMISTRY

BALINSKY, J. B., BALDWIN, E., The mode of excretion of ammonia and urea in *Xenopus laevis*. *J. exp. Biol.*, 38 (1961), 695–705.

Comparative studies of waste nitrogen metabolism in amphibia. *Biochem. J.* 82 (1962), 187–91.

BALINSKY, J. B., CRAGG, M. M., BALDWIN, E., The adaptation of amphibian waste nitrogen excretion to desiccation. *Comp. Biochem. Physiol.*, 3 (1961), 236–44.

CRAGG, M. M., BALINSKY, J. B., BALDWIN, E., A comparative study of nitrogen excretion in some amphibia and reptiles. *Comp. Biochem. Physiol.*, 3 (1961), 227–35.

CROOK, E. M., JOHNSTON, I. R., The qualitative analysis of cell walls of selected species of fungi. *Biochem. J.*, 83 (1962), 325–31.

DANCE, N., HUEHNS, E. R., Investigation of haemoglobin consisting of γ^F-chains prepared from normal cord blood. *Biochem. J.*, 83 (1962), 40–1P.

A haemoglobin containing only δ-chains. *Biochem. & Biophys. Res. Commun.*, 7 (1962), 444–7.

DATTA, S. P., The blood. *Starling and Lovatt Evans Principles of Human Physiology*, ed. H. Davson and M. Grace Eggleton. London: J. &. A. Churchill, 1962, 46–93.

GREENBAUM, A. L., LEAL, R. S., The effect of pituitary growth hormone on cholesterogenesis. *Nature, Lond.*, 199 (1961), 600–1.

HUEHNS, E. R. (with Beaven, G. H.), The reaction of haemoglobin α^A with haemoglobin H and haemoglobin 'Bart's'. *Biochem. J.*, 83 (1962), 40P.

HUEHNS, E. R., DANCE, N., SHOOTER, E. M. (with Beaven, G. H., Gratzer, W. B.), Some properties of the α_2 and γ_2 subunits of foetal haemoglobin. *J. Mol. Biol.*, 4 (1962), 329–37.

HUEHNS, E. R., SHOOTER, E. M., The polypeptide chains of haemoglobin A_2 and haemoglobin G_2. *J. Mol. Biol.*, 3 (1961), 257–62.

Observations on foetal haemoglobin. *Proc. 8th Congr. European Soc. Haematol.* (1961), 303.

Reaction of haemoglobin α^A with haemoglobin H. *Nature, Lond.*, 193 (1962), 1083–4.

(with Atwater, J.), Haemoglobin I_2, a further variant of haemoglobin A_2. *J. Mol. Biol.*, 3 (1961), 707–8.

(with Beaven, G. H.), On the recombination of canine and human haemoglobins. *Ibid.*, 4 (1962), 323–8.

HUEHNS, E. R., SHOOTER, E. M., DANCE, N., A haemoglobin containing only α-chains. *Biochem. & Biophys. Res. Commun.*, 5 (1961), 362–6.

(with Beaven, G. H., Shooter, K. V.), Haemoglobin α^A. *Nature, Lond.*, 192 (1961), 1057–9.

KELLY, M., CLARKE, P. H., An inducible amidase produced by a strain of *Pseudomonas aeruginosa*. *J. gen. Microbiol.*, 27 (1962), 305–16.

KERLY, M., LAYCOCK, G., Incorporation of Carbon-14 from labelled sodium bicarbonate into the retina of the rat. *Nature, Lond.*, 194 (1962), 573.

MATHIAS, A. P. (with Fischer, G. A.), The metabolism of thymidine by murine leukemic lymphoblasts. *Biochem. Pharmacol.*, 11 (1962), 57–68.

Transformation experiments with murine lymphoblastic cells grown in culture. *Ibid.*, 69–78.

WANG, D. Y., Variation of 5′-Nucleotidase activity of the rat mammary gland during pregnancy, lactation and involution. *Biochem. J.*, 83 (1962), 633–7.

WANG, D. Y., GREENBAUM, A. L., The incorporation of (2–^{14}C) glycine and (6–^{14}C) orotic acid into the acid-soluble ribonucleotides and ribonucleic acids of the rat mammary gland. *Biochem. J.*, 83 (1962), 626–32.

WATTS, D. C., RABIN, B. R., CROOK, E. M., The number of catalytic sites in creatine phosphokinase as determined by a study of its reactive sulphydryl groups. *Biochem. J.*, 82 (1962), 412–17.

BIOPHYSICS

COSMOS, E., HARRIS, E. J., In vitro studies of the gain and exchange of calcium in frog skeletal muscle. *J. gen. Physiol.*, 44 (1961), 1121–30.

COUTEAUX, R. (with Auber, J.), L'attache des myofilaments secondaires au niveau de la strie Z dans les muscles de Diptères. *C. R. Acad. Sci.*, 254 (1962), 3425.

FALK, G., FATT, P., Determination of the linear electrical characteristics of striated muscle fibres with intracellular electrodes. *J. Physiol.*, 162 (1962), 37–39P.

FATT, P., The changes in membrane permeability during the inhibitory process. *Nervous Inhibition*, ed. E. Florey. London: Pergamon Press, 1961, 87–91.

HUXLEY, H. E., The contractile structure of cardiac and skeletal muscle. *Circulation*, 24 (1961), 328–35.

(with Barnicot, N. A.), The electron microscopy of unsectioned human chromosomes. *Ann. hum. Genet., Lond.*, 25 (1961), 253–8.

(with Zubay, G.), Preferential staining of nucleic acid-containing structures for electron microscopy. *J. biophys. biochem. Cytol.*, 11 (1961), 273–96.

JENKINSON, D. H. (with Nicholls, J. G.), Contractures and permeability changes produced by acetylcholine in depolarized denervated muscle. *J. Physiol.*, 159 (1961), 111–27.

KATZ, B., How cells communicate. *Sci. Amer.*, 205 (1961), 209–19.

The transmission of impulses from nerve to muscle, and the subcellular unit of synaptic action. The Croonian Lecture. *Proc. roy. Soc.* B, 155 (1962), 455–77.

KATZ, B., MILEDI, R., The nature of spontaneous synaptic potentials in motoneurones of the frog. *J. Physiol.*, 162 (1962), 51–2P.

MILEDI, R., From nerve to muscle. *Discovery*, 22 (1961), 442–50.

Induced innervation of end-plate free muscle segments. *Nature, Lond.*, 193 (1962), 281–2.

Induction of receptors. *Enzymes and Drug Action*, ed. J. L. Mongar and A. V. S. de Reuck. London: J. & A. Churchill, 1962, 220–35.

(with Trowell, O. A.), Acetylcholine sensitivity of rat diaphragm maintained in organ culture. *Nature, Lond.*, 194 (1962), 981–2.

PHARMACOLOGY

DICKER, S. E., Il metabolismo degli ormoni della neuroipofisi. *Rec. Progres. Medicina*, 31 (1961), 38–63.

Release and metabolism of the neurohypophysial hormones. *J. Pharm. Pharmacol.*, 13 (1961), 449–69.

DICKER, S. E., COBBIN, L. B., Some characteristics of plasma and urine hyaluronidases. *J. Physiol.*, 161 (1962), 11–12P.

JENKINSON, D. H. (with Pepper, D. C.), The polymerization of styrene by sulphuric acid. IV. Chain-stopping agents and mechanisms. *Proc. roy. Soc.*, A. 263 (1961), 82–8.

LADER, M. H., MONTAGU, J. D., The psycho-galvanic reflex: a pharmacological study of the peripheral mechanism. *J. Neurol. Psychiat.*, 25 (1962), 126–33.

LAURENCE, D. R., *Clinical Pharmacology* (2nd ed.). London: J. & A. Churchill, 1962. 542 pp.

MONGAR, J. L., Mediators in allergic reactions. *Ceskoslovenska epidemiologie, mikrobiologie, imunologie*, 10 (1961), 217–25.

(with de Reuck, A. V. S.), Editors. *Enzymes and Drug Action.* London: J. & A. Churchill, 1962. 556 pp.

MONGAR, J. L., ROSENOER, V. M., The preparation of urogastrone. *J. Physiol.* 162 (1962), 163–72.

ROSENOER, V. M., The relation of peptide bonds, disulphide bonds and sulphydryl groups to urogastrone activity. *J. Physiol.*, 162 (1962), 173–82.

SCHILD, H. O., Mechanism of development of drug sensitization of the skin. *Proc. roy. Soc. Med.*, 55 (1962), 14–16.

The mechanism of contact sensitization. *J. Pharm. Pharmacol.*, 14 (1962), 1–8.

SCHILD, H. O., BOUGHTON, B., Transfer of delayed hypersensitivity by lymph-node cells in testis autosensitization. *Immunology*, 5 (1962), 522–32.

SCHILD, H. O., EDMAN, K. A. P., The need for calcium in the contractile responses induced by acetylcholine and potassium in the rat uterus. *J. Physiol.*, 161 (1962), 424–41.

SCHILD, H. O., MONGAR, J. L., Cellular mechanisms in anaphylaxis. *Physiol. Rev.*, 42 (1962), 226–70.

SCHILD, H. O., ROSENOER, V. M., The assay of urogastrone. *J. Physiol.*, 162 (1962), 155–62.

SCHILD, H. O., WILLOUGHBY, D. A., BOUGHTON, B., SPECTOR, W. G., A vascular permeability factor from normal and sensitized guinea-pig lymph-node cells. *Life Sciences*, 1 (1962), 347–52.

STEINBERG, HANNAH, Methods and problems of measuring drug-induced changes in emotions and personality. *Rev. Psychol. appl.*, 11 (1961), 361–72.

Successive approximation. In Symposium: Drugs as Research Tools in Psychology. *Acta Psychol., Hague*, 19 (1961), 771–5.

Experimental methods in psychopharmacology. *Recent Advances in Pharmacology*, ed. J. M. Robson and R. S. Stacey. London: J. & A. Churchill, 1962, 77–87.

(with Legge, D.), Actions of a mixture of amphetamine and a barbiturate in man. *Brit. J. Pharmacol.*, 18 (1962), 490–500.

STEINBERG, HANNAH, RUSHTON, R., TINSON, C., Modification of the effects of an amphetamine-barbiturate mixture by the past experience of rats. *Nature, Lond.*, 192 (1961), 533–5.

WEBSTER, R. A., Centrally acting muscle relaxants in tetanus. *Brit. J. Pharmacol.*, 17 (1961), 507–18.

Site of action of chlorpromazine and mephenesin in experimental tetanus. *Ibid.*, 18 (1961), 150–60.

ANGEL, A., Effect of peripheral stimulation on unit discharges in the thalamus. *J. Physiol.*, 158 (1961), 23–4P.

ARMETT, CHRISTINE J., HUNSPERGER, R. W., Excitation of receptors in the pad of the cat by single and double mechanical pulses. *J. Physiol.*, 158 (1961), 15–38.

BAYLISS, L. E., William Maddox Bayliss, 1860–1924: Life and Scientific Work. *Perspectives in Biology and Medicine*, IV (1961), 460–79.

The rheology of blood. *Handbook of Physiology*. 2. *Circulation*, ed. W. F. Hamilton and P. Dow. Baltimore: American Physiological Society, 1962, 137–50.

BHOOLA, K. D., CALLE, J. D., SCHACHTER, M., Identification of acetylcholine, 5-hydrozytryptamine, histamine, and a new kinin in hornet venom (*V. Crabro*). *J. Physiol.*, 159 (1961), 167–82.

BHOOLA, K. D., MAY MAY YI, ROSE, MORLEY, J., SCHACHTER, M., Kinin-releasing enzyme in the accessory sex glands of the guinea-pig. *J. Physiol.*, 159 (1961), 34–5P.

BHOOLA, K. D., SCHACHTER, M., Contracture of the isolated denervated rat diaphragm by adrenaline. *Biochem. Pharmacol.*, 8 (1961), 498.

BINDMAN, LYNN J., LIPPOLD, O. C. J., REDFEARN, J. W. T., The diffusion of *y*-aminobutyric acid within the mammalian cerebral cortex and the non-selective nature of its blocking action. *J. Physiol.*, 160 (1961), 24-5P.

The prolonged after-action of polarizing currents on the sensory cerebral cortex. *Ibid.*, 162 (1962), 12–13P.

The non-selective blocking action of aminobutyric acid on the sensory cerebral cortex of the rat. *Ibid.*, 105–20.

BROWN, G. L., DAVIES, B. N., FERRY, C. B., The effect of neuronal rest on the output of sympathetic transmitter from the spleen. *J. Physiol.*, 159 (1961), 365–80.

DAVSON, H., Introduction. *Starling and Lovatt Evans Principles of Human Physiology*, ed. H. Davson and M. Grace Eggleton. London: J. & A. Churchill, 1962, 1–40.

Extracellular fluid and lymph, cerebrospinal fluid. *Ibid.*, 306–43.

Central nervous system and special senses. *Ibid.*, 907–1385.

DAVSON, H., KLEEMAN, C. R., LEVIN, E., Blood-brain barrier and extracellular space. *J. Physiol.*, 159 (1961), 67–8P.

Quantitative studies of the passage of different substances out of the cerebrospinal fluid. *Ibid.*, 161 (1962), 126–42.

DAVSON, H., POLLAY, M., PURVIS, C., Sampling apparatus used in conjunction with ventriculo-cisternal perfusion. *J. Physiol.*, 162 (1962), 7–8P.

DAVSON, H., SPAZIANI, E., The effect of hypothermia on intraocular dynamics. *Exp. Eye Res.*, 1 (1961), 182–92.

DÉLÈZE, J. B., The mechanical properties of the semitendinosus muscle at lengths greater than its length in the body. *J. Physiol.*, 158 (1961), 154–64.

DIETE-SPIFF, K., The discharge pattern of muscle spindles of the rabbit on activation of intrafusal muscle fibres. *J. Physiol.*, 159 (1961), 282–96.

DIETE-SPIFF, K., DODSWORTH, HELEN, PASCOE, J. E., An analysis of the effect of ether and ethyl chloride on the discharge frequency of gastrocnemius fusimotor neurones in the rabbit. *Golden Jubilee Congress University of Hong Kong, Symp. Muscle Receptors* (1961), 43–7.

DIETE-SPIFF, K., IKESON, C., READ, G. L., Constant temperature device for use with biological microscopes. *J. Physiol.*, 162 (1962), 10–11P.

EDMAN, K. A. P., GRIEVE, D. W., The role of calcium and zinc in the electrical and mechanical responses of frog sartorius muscle. *Experienta*, 17 (1961), 557.

EGGLETON, M. GRACE, Renal secretion. *Starling and Lovatt Evans Principles of Human Physiology*, ed. H. Davson and M. Grace Eggleton. London: J. & A. Churchill, 1962, 690–741.

GRAY, J. A. B., Mechanically excitable receptor units in the mantle of the octopus and their connexions. *J. Physiol.*, 153 (1960), 573–82.

HAMPTON, I. F. G., Energy expenditure and caloric intake of an undergraduate expedition. *Nutrition*, xiv (1960), 174–83.

HARKNESS, R. D., Biological functions of collagen. *Biol. Rev.* 36 (1961), 399–463.

Endocrine organs and reproduction. *Starling and Lovatt Evans Principles of Human Physiology*, ed. H. Davson and M. Grace Eggleton. London: J. & A. Churchill, 1962, 1387–516.

HARKNESS, R. D., NIGHTINGALE, MARGARET, A., The extensibility of the cervix uteri of the rat at different times of pregnancy. *J. Physiol.*, 160 (1962), 214-20.

HILL, A. V., The heat produced by a muscle after the last shock of a tetanue. *J. Physiol.*, 159 (1961), 518–45.

(with appendix by R. C. Woledge), The negative delayed heat production in stimulated muscle. *Ibid.*, 158 (1961), 178–96.

HILL, A. V., WOLEDGE, R. C., An examination of absolute values in myothermic measurements. *J. Physiol.*, 162 (1962), 311–33.

HUBBARD, S. J., A method for the determination of the absolute values of chloride and potassium ionic conductances in denervated skeletal muscle. *J. Physiol.*, 162 (1962), 13–14P.

HUTTER, O. F., Ion movements during vagus inhibition of the heart. *Symp. Nervous Inhibitions, Seattle 1961*. London: Pergamon, 1961, 114–23.

HUTTER, O. F., NOBLE, D., Anion conductance of cardiac muscle. *J. Physiol.*, 157 (1961), 335–50.

HUXLEY, A. F. Skeletal muscle. *Symp. Muscle as a Tissue, Lankenau 1960*. Philadelphia: Lankenau, 1960.

A micromanipulator. *J. Physiol.*, 157 (1961), 5–7P.

HUXLEY, A. F., GORDON, A. M., Striation patterns in active and passive shortening of muscle. *Nature, Lond.*, 193 (1962), 280–1.

HUXLEY, A. F., KEARNEY, A., PURVIS, C. A dissecting microscope. *J. Physiol.*, 162 (1962), 9-10P.

MORLEY, J., SCHACHTER, M., Acetylcholine in non-nervous tissues of the garden tiger (*Arctia Caja*) and other moths. *J. Physiol.*, 162 (1962), 12P.

NICHOLLS, J. G. (with Jenkinson, D. H.), Contractures and permeability changes produced by acetylcholine in depolarized denervated muscle. *J. Physiol.*, 159 (1961), 111-27.

NOBLE, D., A modification of the Hodgkin-Huxley equations applicable to Purkinje fibre action and pace-maker potentials. *J. Physiol.*, 160 (1962), 317–52.

READ, G. L. (with Palmer, J. F.), A general purpose low-level d.c. amplifier suitable for biological use. *J. Physiol.*, 161 (1962), 35–7P.

SCHACHTER, M., Bradykinin and other capillary active factors. *Biochem. Pharmacol.*, 8 (1961), 178.

Inflammation and Immunity. *Starling and Lovatt Evans Principles of Human Physiology*, ed. H. Davson and M. Grace Eggleton. London: J. & A. Churchill, 1962, 1517-41.

Pharmacologically active polypeptides. *Recent Advances in Pharmacology*, ed. J. Robson and S. Stacey. London: J. & A. Churchill, 1962, 156–78.

WILKIE, D. R., Muscle. *Starling and Lovatt Evans Principles of Human Physiology*, ed. H. Davson and M. Grace Eggleton. London: J. & A. Churchill, 1962, 794–876.

Man-powered flight. *Discovery*, 23 (1962), 27–32.

THE LIBRARY

SCOTT, J. W., The library of University College London. *The Libraries of London*, ed. R. Irwin and R. Staveley. London: The Library Association, 1961, 157–96.

STUDENT HEALTH ASSOCIATION

LINKEN, A., Radiation hazards. *Proc. British Student Health Assoc. Ann. Conf.* (1961), 34–7.

LUCAS, C. J., Personality of students with acne vulgaris. *Brit. med. J.*, 2 (1961), 354-6.

APPENDIX I

COLLEGE COMMITTEE

	*Attendances**
Chairman: The Right Hon. Lord Cohen, P.C.‡	5–7
Vice-Chairman: (to 3 July 1962) Sir Frederick James, O.B.E.‡	6–7
(from 3 July 1962) The Right Hon. Lord Strang, G.C.B., G.C.M.G., M.B.E., B.A., LL.D.†	6–7
Treasurer: (to 1 April 1962) Sir Frederick James, O.B.E.‡	6–7
(from 2 April 1962) Sir Bernard Waley-Cohen, BT, LL.D.	2–7
Professor M. Abercrombie, M.A., B.SC., F.R.S.§	2–4
Professor G. C. Allen, C.B.E., M.COM., PH.D.	7–7
Professor H. E. M. Barlow, B.SC.(ENG.), PH.D., M.I.E.E., M.I.MECH.E., F.R.S.†	5–7
H. K. Cameron, B.SC., PH.D.	3–7
Mrs Irene Chaplin, B.A., J.P.	5–7
Professor W. R. Dean, M.A.¶	3–3
P. Dunsheath, C.B.E., M.A., D.SC.(ENG.), D.ENG., LL.D.	5–7
Sir Ifor Evans, D.LIT.† *Provost*	7–7
Sylvester Gates, C.B.E., B.A.	5–7
Professor A. V. Hill, C.H., O.B.E., SC.D., LL.D., D.SC., M.D., F.R.S.‡	7–7
Professor E. D. Hughes, D.SC., PH.D., F.R.I.C., F.R.S.†§	2–4
Professor A. F. Huxley, M.A., F.R.S.¶	3–3
L. Margaret Kerly, M.A., PH.D.	3–7
Professor D. Lloyd, M.A., LL.D.§	3–4
L. H. Macklin, O.B.E., M.A.	5–7
E. K. Martin, M.B., M.S., F.R.C.S.†	6–7
T. A. L. Paton, C.M.G., B.SC., M.I.C.E., M.AM.SOC.C.E.†	2–7
Sir Edward Playfair, K.C.B.¶	6–6
Professor E. C. Ryder, M.A., LL.B.¶	3–3
F. J. Stephens, M.A.‡	3–7
G. F. Vaughan, M.B., M.R.C.P., D.P.M.	3–7
G. E. Walker, O.B.E., M.A.	5–7
Professor Lady Williams, B.A.¶	3–4

* The two figures indicate respectively the number of times that the member attended, and the number of times that he was summoned to a meeting of the Committee during the year 1 October 1961 to 30 September 1962. ‡ Hon. Fellow of the College. † Fellow of the College. § Membership terminated before 30 September 1962. ¶ Appointed after 1 October 1961.

APPENDIX II

PROFESSORIAL BOARD

Chairman: Sir Ifor Evans, D.LIT., Provost†

M. Abercrombie, M.A., B.SC., F.R.S., Professor of Embryology

C. W. Allen, D.SC., Perren Professor of Astronomy

G. C. Allen, C.B.E., M.COM., PH.D., Professor of Political Economy

H. C. Allen, M.C., M.A., Commonwealth Fund Professor of American History

G. F. Arnold, B.A., Lecturer in Phonetics

Ernest Baldwin, PH.D., Professor of Biochemistry

H. E. M. Barlow, B.SC.(ENG.), PH.D., M.I.E.E., M.I.MECH.E., F.R.S., Pender Professor of Electrical Engineering†

N. A. Barnicot, PH.D., Professor of Physical Anthropology

M. S. Bartlett, M.A., D.SC., F.R.S., Professor of Statistics

R. E. D. Bishop, M.A., M.S., PH.D., D.SC.(ENG.), A.M.I.MECH.E., A.F.R.AE.S., Kennedy Professor of Mechanical Engineering

F. Brailsford, B.SC.(ENG.), PH.D., M.I.E.E., Professor of Electrical Engineering

E. H. S. Burhop, B.A., M.SC., PH.D., Professor of Physics

A. H. Chilver, B.SC., M.A., PH.D., A.F.R.AE.S., Chadwick Professor of Civil Engineering

A. B. C. Cobban, M.A., PH.D., Professor of French History

Sir William Coldstream, C.B.E., D.LITT., Slade Professor of Fine Art†

P. E. Corbett, M.A., Yates Professor of Classical Art and Archaeology

D. P. Craig, D.SC., F.R.I.C., Professor of Chemistry

H. C. Darby, O.B.E., M.A., PH.D., LITT.D., Professor of Geography

Florence N. David, D.SC., Reader in Probability and Statistics

W. R. Dean, M.A., Goldsmid Professor of Mathematics

M. B. Donald, M.SC., F.R.I.C., HON.M.I.CHEM.E., A.R.C.S., Ramsay Memorial Professor of Chemical Engineering

G. C. Drew, M.A., Professor of Psychology

W. B. Emery, M.B.E., M.A., D.LIT., F.B.A., F.S.A., Edwards Professor of Egyptology

L. D. Ettlinger, PH.D., F.S.A., Durning-Lawrence Professor of the History of Art

C. Fahy, M.A., PH.D., Lecturer in Italian

Daryll Forde, PH.D., Professor of Anthropology†

D. B. Fry, PH.D., Professor of Experimental Phonetics

A. H. Gerrard, Professor of Sculpture

R. E. Gibbs, D.SC., F.INST.P., Reader in Physics and Tutor to Science Students†

J. A. B. Gray, SC.D., M.A., M.B., B.CHIR., Professor of Physiology

H. Grüneberg, PH.D., M.D., D.SC., F.R.S., Professor of Genetics

J. Hamilton, M.A., M.SC., PH.D., Professor of Physics

† Fellow of the College.

S. N. Hampshire, M.A., F.B.A., Grote Professor of Philosophy of Mind and Logic

Sir William Holford, M.A., D.C.L., LL.D., P.P.R.I.B.A., M.T.P.I., F.I.L.A., A.R.A., Professor of Town Planning

S. E. Hollingworth, M.A., D.SC., Yates-Goldsmid Professor of Geology

E. D. Hughes, D.SC., PH.D., F.R.I.C., F.R.S., Professor of Chemistry†

R. A. Humphreys, O.B.E., M.A., PH.D., Professor of Latin American History

J. Hurstfield, B.A., Astor Professor of English History (Professor of Modern History to 31 March 1962)

A. F. Huxley, M.A., F.R.S., Jodrell Professor of Physiology

Raymond Irwin, M.A., F.L.A., Professor of Library Studies

E. R. H. Ivamy, PH.D., Professor of Law

B. Katz, M.D., PH.D., D.SC., F.R.S., Professor of Biophysics†

G. W. Keeton, M.A., LL.D., Professor of English Law

L. Margaret Kerly, M.A., PH.D., Reader in Biochemistry

D. Lewis, D.SC., F.R.S., Quain Professor of Botany

R. Llewelyn Davies, M.A., F.R.I.B.A., Professor of Architecture

D. Lloyd, M.A., LL.D., Quain Professor of Jurisprudence

Dame Kathleen Lonsdale, D.B.E., D.SC., F.R.S., Professor of Chemistry†

A. Maccoll, D.SC., PH.D., Reader in Chemistry

D. McKie, D.SC., PH.D., F.R.I.C., F.R.S.E., Professor of History and Philosophy of Science†

R. D. McLellan, PH.D., Senior Tutor and Senior Lecturer in Greek and Latin†

Sir Harrie Massey, D.SC., PH.D., LL.D., F.R.S., Quain Professor of Physics

W. R. Mead, M.SC.(ECON.), PH.D., Professor of Geography

P. B. Medawar, C.B.E., M.A., D.SC., D. DE L'UNIV., F.R.S., Jodrell Professor of Zoology and Comparative Anatomy

A. D. Momigliano, M.A., D.LITT., F.B.A., Professor of Ancient History

J. L. Mongar, PH.D., Reader in Chemical Pharmacology

R. S. Nyholm, D.SC., F.R.I.C., F.R.S., Professor of Chemistry†

L. S. Penrose, M.A., M.D., D.SC., F.R.C.P., F.R.S., Galton Professor of Eugenics

N. W. Please, B.SC., Lecturer in Statistics

R. Powell, D.C.L., Professor of Roman Law

Randolph Quirk, M.A., PH.D., Professor of English Language

Constance M. Rigby, M.A., PH.D., Lecturer in Mathematics

C. A. Rogers, D.SC., F.R.S., Astor Professor of Mathematics

K. F. Roth, B.A., M.SC., PH.D., F.R.S., Professor of Mathematics

E. C. Ryder, M.A., LL.B., Professor of English Law

H. O. Schild, M.D., PH.D., D.SC., Professor of Pharmacology

J. W. Scott, B.A., A.L.A., Librarian

O. Skutsch, DR.PHIL., Professor of Latin

A. H. Smith, O.B.E., R.N.O., R.F., PH.D., D.LIT., FIL.DR., F.S.A., Quain Professor of English Language and Literature

† Fellow of the College.

S. Stein, PH.D., Reader in Hebrew

James R. Sutherland, M.A., B.LITT., LL.D., F.B.A., Lord Northcliffe Professor of Modern English Literature

O. J. L. Szemerényi, DR.PHIL., Professor of Comparative Philology

E. H. Thompson, O.B.E., B.A., F.R.I.C.S., Professor of Surveying & Photogrammetry

M. A. Thomson, M.A., D.PHIL., Astor Professor of English History*

E. G. Turner, M.A., F.B.A., Professor of Papyrology

T. B. L. Webster, M.A., LITT.D., F.S.A., HON.R.A., Professor of Greek

R. Weiss, B.A., Professor of Italian

G. P. Wells, M.A., SC.D., F.R.S., Professor of Zoology

D. J. B. White, PH.D., Senior Lecturer in Botany

Elizabeth M. Wilkinson, PH.D., Professor of German

B. Woledge, M.A., D. DE L'UNIV., Fielden Professor of French Language and Literature

J. Z. Young, M.A., D.SC., F.R.S., Professor of Anatomy

*Died 4 January 1962

APPENDIX III

HONORARY FELLOW AND FELLOWS

The following elections were made in 1962:

HONORARY FELLOW

Dr Detlev Wulf Bronk, O.B.E. (Hon.), President of the Rockefeller Institute, New York; President of the National Academy of Sciences (U.S.A.).

FELLOWS

Dr Francis Harry Compton Crick, F.R.S., Scientist at the Medical Research Council Unit for Molecular Biology, Cavendish Laboratory, Cambridge.

Mr Robert Vere Darwin, C.B.E., Principal of the Royal College of Art.

Mr David Ronald Davies, Consultant Surgeon, University College Hospital and Harrow Hospital.

Dr Raymond Oliver Faulkner, Lecturer in Egyptology (Egyptian Language), University College London.

Dr Reginald Edmund Gibbs, Reader and Deputy Director of Undergraduate Laboratories, Department of Physics, University College London, and Sub-Dean and Tutor of the Faculty of Science.

Professor Robert George Spencer Hudson, F.R.S., Professor of Geology and Mineralogy, Trinity College in the University of Dublin; formerly Chief Palaeontologist, Iraq Petroleum Company Limited.

Sir Harry Vincent Lloyd-Jones, Judge of the High Court of Justice, Probate, Divorce and Admiralty Division.

Dr Robert Douglas McLellan, Senior Tutor, University College London, Sub-Dean and Tutor of the Faculty of Arts, and Senior Lecturer, Departments of Greek and Latin.

Dr Sidney Walter Saunders, Chairman of Imperial Chemical Industries (Heavy Organic Chemicals) Limited.

APPENDIX IV

RECOGNITION OF TEACHERS

The following members of the academic staff have been granted, during the academic year 1961–62, Full Recognition as Teachers of the University in the subjects and in the University Faculties indicated:

Callomon, J. H.	Chemistry	Science
Carter, B. A. R.	Fine Art	Arts
Cramp, A. B.	Economics	Economics
Fahy, C.	Italian	Arts
Figgis, B. N.	Chemistry	Science
Forge, A.	Fine Art	Arts
Fox, J. W.	Physics	Science
Guillery, R. W.	Anatomy	Medicine and Science
Heddle, D. W. O.	Physics	Science
Hubbard, S. J.	Physiology	Medicine and Science
Lambert, T. H.	Mechanical Engineering	Engineering
Lynch, J.	History	Arts
Miledi, R.	Physiology	Medicine and Science
Niedergerke, R.	Physiology	Medicine and Science
Rogers, C.	Fine Art	Arts
Screech, M. A.	French	Arts
Smeaton, W. A.	History and Philosophy of Science	Science
Taylor, W. K.	Electrical Engineering	Engineering
Tobe, M. L.	Chemistry	Science
Warburg, J. F.	English	Arts

APPENDIX V

PRINCIPAL CHANGES IN THE ACADEMIC STAFF

FACULTY OF ARTS

ANTHROPOLOGY

Appointments: R. G. Abrahams, B.A. (Research Assistant), formerly postgraduate research student, University of Cambridge.
R. E. Bradbury, PH.D. (Assistant Lecturer), from University College, Ibadan.

Resignation: R. L. Wishlade, B.A., PH.D. (Research Assistant), to Tavistock Institute of Human Relations. (Appointed Honorary Research Assistant in Department).

ARCHAEOLOGY

Appointment: P. E. Corbett, M.A. (Yates Professor of Classical Art and Archaeology), formerly Assistant Keeper, Department of Greek and Roman Antiquities, British Museum.

ARCHITECTURE

Appointments: T. D. Goddard, A.A.DIPL., A.R.I.B.A. (Lecturer), formerly Temporary Lecturer in Department.
N. Lisborg, M.SC., M.ING.F., A.M.I.C.E. (Senior Lecturer), private consulting practice.

ENGLISH LANGUAGE AND LITERATURE

Resignations: C. E. C. Burch, B.A. (Research Assistant), to Archives Department, Hertfordshire County Council.
J. F. Warburg, M.A., A.M. (Lecturer), to Assistant Professorship, Earlham College, Richmond, Indiana.
V. G. Watson, B.A. (Assistant), to school teaching appointment.

FINE ARTS

Appointments: Marina A. R. Betts, M.A. (Part-time Assistant), formerly Departmental Assistant in Department.
J. Camp (Part-time Assistant).
H. Cohen (Part-time Assistant).
M. H. Kellaway (Part-time Assistant).
B. dos Santos (Part-time Assistant).
S. E. Toulmin, M.A., PH.D. (Honorary Research Associate), Director of Nuffield Foundation Unit for the History of Ideas.

Retirements: P. Brooker (Part-time Assistant).
G. J. Charlton (Part-time Assistant).
F. Ormrod (Part-time Assistant).

FRENCH

Appointments: Shirley E. Jones, B.A. (Assistant Lecturer), formerly postgraduate research student, Bedford College, London.
M. A. Screech, D.LITT. (Lecturer), from University of Birmingham.

GEOGRAPHY

Resignations: K. M. Barbour, B.LITT., M.A. (Lecturer), to Chair of Geography, University College of Ibadan.

Professor A. H. Clark, M.A., PH.D. (Honorary Research Associate), returning to University of Wisconsin.

GERMAN

Resignation: D. G. Mowatt, B.A. (Lecturer), to Victoria College, Toronto.

GREEK

Appointments: E. J. Jory, B.A. (Honorary Lecturer), from University of Western Australia.

Agathe H. T. Thornton, PH.D. (Honorary Research Associate), from University of Otago.

Resignations: Professor S. Davis, M.A., D.LITT. (Honorary Research Associate), returning to University of the Witwatersrand.

J. A. Willis, PH.D. (Lecturer), to Readership at University of Western Australia.

HISTORY

Appointments: G. H. P. Chorley, B.A. (Assistant Lecturer), formerly editor of the universities page, *The Observer*.

J. Lynch, M.A., PH.D. (Leverhulme Lecturer in Hispanic and Latin American History), from University of Liverpool.

D. A. L. Morgan, B.A. (Assistant Lecturer), from Magdalen College, Oxford.

Death: M. A. Thomson, M.A., D.PHIL. (Astor Professor of English History).

ITALIAN

Appointment: J. D. Moores, B.A. (Assistant Lecturer), formerly postgraduate student in Department.

LATIN

Appointment: E. J. Jory, B.A. (see Greek).

Resignation: J. A. Willis, PH.D. (see Greek).

LIBRARIANSHIP AND ARCHIVES

Resignation: J. R. Ede, M.A. (Part-time Lecturer).

PHONETICS

Resignation: P. Denes, M.SC., PH.D., A.M.I.E.E. (Lecturer), to Bell Telephone Laboratories, Inc., New Jersey, U.S.A.

Retirement: Hélène N. Coustenoble, D.LIT. (Reader).

POLITICAL ECONOMY

Appointments: M. Díaz-Rey, B.SC.(ECON.) (Leverhulme Assistant Lecturer in Latin American Economic Studies), formerly student in Department.

A. Sutherland, M.A. (Lecturer), from Yale University.

FACULTY OF LAWS

Appointments: E. D. Brown, B.L. (Assistant Lecturer), from National Service.
R. W. Harding, LL.B. (Assistant Lecturer), from Fellowship at Columbia University, New York.

FACULTY OF SCIENCE

BOTANY

Appointments: J. Janick, M.S., PH.D. (Honorary Research Associate), from Purdue University.
K. Taylor, B.SC. (Assistant Lecturer) formerly postgraduate research student, University of Cambridge.

Resignations: Mrs W. Sheila Burrage, B.SC. (Research Assistant).
E. Hase, D.SC. (Honorary Research Associate), returning to University of Tokyo.

CHEMISTRY

Appointments: C. J. Brown, D.SC., F.R.I.C., F.INST.P. (Honorary Research Associate).
R. J. H. Clark, M.SC., PH.D. (Assistant Lecturer), formerly research student in Department.
S. H. Walmsley, PH.D. (Assistant Lecturer), from National Physical Laboratory, Teddington.

Resignations: J. Lewis, D.SC. (Reader), to Professorship of Inorganic Chemistry, University of Manchester.
Y. Pocker, PH.D., D.SC. (Lecturer), to Chair of Chemistry, University of Washington, Seattle.

Retirement: J. N. E. Day, M.SC., PH.D. (Senior Lecturer).

GEOLOGY

Resignation: Professor R. G. S. Hudson, D.SC., F.R.S. (Honorary Research Associate).

MATHEMATICS

Appointment: D. C. Belinfante, PH.D. (Lecturer), from University of Liverpool.

Resignation: G. M. L. Gladwell, PH.D. (Lecturer), to University College, Southampton.

Retirement: F. C. Harris, M.SC., PH.D. (Senior Lecturer).

Death: A. C. Stevenson, M.SC. (Reader in Applied Mathematics).

PHYSICS

Appointment: H. B. Gilbody, PH.D. (Lecturer), from temporary appointment in Department.

Resignation: A. R. Edmonds, PH.D. (Honorary Research Associate).

PSYCHOLOGY

Appointments: D. Legge, B.SC. (Assistant Lecturer), from research appointment in Departments of Psychology and Pharmacology.
Professor A. Summerfield, B.SC. (Honorary Research Associate), of Birkbeck College, London.

Resignations: R. Marriott, M.SC. (Honorary Research Associate).
Professor G. P. Mason, M.A., PH.D. (Honorary Research Associate), returning to Victoria College, British Columbia.

STATISTICS

Resignation: J. G. Saw, PH.D. (Lecturer), to Virginia Polytechnic Institute, U.S.A.

ZOOLOGY AND COMPARATIVE ANATOMY

Appointment: R. C. Fisher, M.A., PH.D. (Assistant Lecturer), from King's College, London.

Resignations: L. Brent, PH.D. (Lecturer), to National Institute for Medical Research. (Appointed Honorary Research Associate in Department).
P. B. Medawar, C.B.E., M.A., D.SC., SC.D., D. DE L'UNIV., F.R.S. (Jodrell Professor of Zoology and Comparative Anatomy), to Directorship of National Institute for Medical Research. (Appointed Honorary Research Associate in Department.)

FACULTY OF ENGINEERING

CIVIL AND MUNICIPAL ENGINEERING

Appointment: A. H. Chilver, B.SC., M.A., PH.D., A.F.R.AE.S. (Chadwick Professor of Civil Engineering), from Corpus Christi College, Cambridge.

Resignation: J. Gregory, B.SC. (Research Assistant).

MECHANICAL ENGINEERING

Resignation: A. H. Makomaski, B.SC.(ENG.), PH.D. (Lecturer).

ELECTRICAL ENGINEERING

Appointments: M. R. Harris, B.SC.(ENG.), (Lecturer), from Associated Electrical Industries Ltd., Manchester.
P. A. Matthews, B.SC.(ENG.), PH.D. (Lecturer), from Royal Naval College, Greenwich.

CHEMICAL ENGINEERING

Appointment: A. R. Burgess, PH.D., A.R.C.S., D.I.C. (Lecturer), from Fellowship at University of British Columbia.

FACULTY OF MEDICAL SCIENCES

ANATOMY AND EMBRYOLOGY

Appointments: J. L. Craven, B.SC., M.B., CH.B. (Assistant Lecturer), from St Mary's Hospital, Portsmouth.
D. G. Gwyn, M.B., B.S., M.R.C.S., L.R.C.P. (Assistant Lecturer), from Royal Free Hospital.
Frances Lefford, M.B., B.S. (Assistant Lecturer), held M.R.C. Scholarship in Department.
J. S. P. Lumley, M.B., B.S., M.R.C.S., L.R.C.P. (Assistant Lecturer), from University College Hospital.

Resignation: Mrs Elsie M. Stephenson, M.SC., PH.D. (Honorary Research Associate), returning to University of New South Wales.

Death: E. A. Blake Pritchard, M.A., M.D., F.R.C.P. (Honorary Lecturer).

BIOPHYSICS

Resignation: H. E. Huxley, M.B.E., M.A., PH.D., F.R.S. (Honorary Research Associate).

PHARMACOLOGY

Appointments: M. Maureen Dale, B.SC., M.B., B.CH. (Honorary Research Associate), from University of Natal.

D. H. Jenkinson, B.A., D.SC. (Lecturer), previously Assistant Lecturer in Biophysics.

Resignation: S. E. Dicker, M.D., PH.D., D.SC. (Lecturer), to Headship of Department of Physiology, Chelsea College of Science and Technology.

PHYSIOLOGY

Appointment: D. Noble, B.SC. (Assistant Lecturer), from temporary appointment in Department.

Resignation: K. Diete-Spiff, B.SC., L.R.C.P., M.R.C.S. (Sharpey Scholar), to University of Lagos Medical School.

APPENDIX VI

PUBLIC LECTURES

ENDOWED LECTURES

CHAMBERS MEMORIAL LECTURE

Professor C. L. Wrenn, Oxford: 'Anglo-Saxon Poetry and the Amateur Archaeologist'

COMMONWEALTH FUND LECTURES

Professor Louis Hartz, Harvard: 'American History in the Perspective of the New Societies' (eight lectures)

FELDBERG FOUNDATION LECTURE

Professor Dr Herbert Hensel, Marburg: 'The Electrophysiology of Thermoreceptors'

LORD NORTHCLIFFE LECTURES IN LITERATURE

Mr Angus Wilson: 'Evil in the English Novel' (four lectures)

SETON MEMORIAL LECTURE

Professor D. Hay, Edinburgh: 'The Franciscans and the Fifteenth Century Church'

SHEARMAN MEMORIAL LECTURES

Professor K. R. Popper, London School of Economics: 'Science and the Growth of Knowledge' (four lectures)

INAUGURAL LECTURES

Professor P. E. Corbett, Yates Professor of Classical Art and Archaeology: 'Greek Vase-Painting: some methods of study'

Professor E. R. H. Ivamy, Professor of Law: 'Reflections on Commercial Law'

Professor K. F. Roth, Professor of Mathematics: 'Rational Approximations to Irrational Numbers'

Professor H. O. Schild, Professor of Pharmacology: 'Adventures with Histamine'

Professor O. J. L. Szemerényi, Professor of Comparative Philology: 'Trends and Tasks in Comparative Philology'

LUNCH-HOUR LECTURES

Professor G. C. Allen: 'The Impediments to Britain's Industrial Progress'
Dr G. B. Brown: 'What is wrong with Relativity?'
Dr J. H. Burns: 'Jeremy Bentham and University College'
Mr T. J. Chandler: 'London's Heat-Island'
Dr A. S. G. Curtis: 'The Capabilities of a Living Cell'
Professor H. C. Darby: 'National Parks in England and Wales'
Dr M. Mary Douglas: 'Cult and Ordeal as Techniques of Sorcery Control in the Congo'
Dr P. B. Downing: 'Causation'
Professor L. D. Ettlinger: 'English Caricature from Hogarth to Rowlandson'
Professor Daryll Forde: 'The Old Order and the New in West Africa'
Mr Andrew Forge: 'Camille Pissarro and Nineteenth Century Landscape Painting'
Dr Frieda Goldman-Eisler: 'The Significance of Pausing in Speech'
Professor Stuart Hampshire: 'Freedom and the Future'
Professor Raymond Irwin: 'The Study and the Sofa: a chapter in the history of reading'
Dr H. Kalmus: 'Biological Time-keeping'
Mr L. B. Keeble: 'The Crisis in British Town Planning'
Dr E. H. Kossmann: 'The Dutch Bourgeois'
Professor R. Llewelyn Davies: 'Sources of Architectural Inspiration'
Dr H. Judith Milledge: 'Form and Colour in Nature'
Dr P. J. Newbould: 'Nature Reserves in Britain: can we afford them?'
Mr F. Parkinson: 'The Politics of Underdeveloped Countries'
Mr A. G. R. Petti: 'Elizabethan Spies'
Professor Randolph Quirk: 'Is Pidgin English?'
Professor James R. Sutherland: 'Pepys, Swift, Boswell, and the Intimate Journal'
Dr L. W. Tancock: 'The Pen of my Aunt: the insoluble problem of translation'
Mr D. Thomas: 'London's Green Belt'
Dr C. A. Vernon: 'Chemical Theories of the Origin of Life'
Dr J. L. Watling: 'Probability'
Professor T. B. L. Webster: 'The Ancient Greek Theatre and its Scenery'
Professor R. Weiss: 'A Renaissance Forger's Progress'

LECTURES ARRANGED BY COLLEGE DEPARTMENTS

This list includes only those lectures given by visiting lecturers or by honorary members of the staff.

ANATOMY AND EMBRYOLOGY

Dr Malcolm S. Gordon, California, Los Angeles: 'Osmotic Regulation in Euryhaline Amphibia'

BIOCHEMISTRY

Professor J. N. Davidson, Glasgow: 'The Biosynthesis of Polynucleotides' (two lectures)

Dr I. M. Glynn, Cambridge: 'Sodium and Potassium Movements in Living Cells' (two lectures)

Professor R. K. Morton, Adelaide: 'The Flavohaemoprotein, Cytochrome b_2—a New Type of Dehydrogenase'

Dr H. G. Wittmann, Max-Planck-Institut für Biologie, Tübingen: 'Genetic Code between Nucleic Acid and Protein'

Professor D. D. Woods, Oxford: 'The Biosynthesis of Methionine—a pattern of research with micro-organisms' (two lectures)

HEBREW

Professor Yigael Yadin, Jerusalem: 'New Light on Bar Kochba: The Recent Expedition to the Dead Sea Area'

APPENDIX VII

NUMBERS OF STUDENTS, SESSION 1961–62

	Under-graduates	*Post-graduates*	*Totals*
Faculty of Arts:			
(*a*) General	884 (254)	256 (73)	1,140 (327)
(*b*) Department of Political Economy	137 (3)	15 (2)	152 (5)
(*c*) Slade School of Fine Art	202 (23)	23 (4)	225 (27)
(*d*) Bartlett School of Architecture	111 (—)	2 (1)	113 (1)
(*e*) Department of Town Planning	36 (36)	103 (102)	139 (138)
(*f*) School of Librarianship and Archives	— (—)	57 (22)	57 (22)
Faculty of Science	675 (5)	401 (96)	1,076 (101)
Faculty of Medical Sciences	174 (1)	10* (1)	184 (2)
Faculty of Engineering	217 (—)	92 (12)	309 (12)
Faculty of Laws	330 (47)	140 (44)	470 (91)
	2,766 (369)	1,099 (357)	3,865 (726)

* This figure excludes 51 full-time and 6 part-time postgraduate students working in Departments in the College Faculty of Medical Sciences who were registered in the University Faculty of Science.

The figures in brackets indicate the number of part-time students which is included in the total under each head.

APPENDIX VIII

GEOGRAPHICAL DISTRIBUTION OF STUDENTS, SESSION 1961–62

	Under-graduates	*Post-graduates*	*Totals*
UNITED KINGDOM			
London	278	167	445
Home Counties (30-mile radius)	679	272	951
Remainder of United Kingdom	1,386	252	1,638
BRITISH COMMONWEALTH OF NATIONS			
Australia	9	28	37
Canada	8	48	56
Ceylon	6	11	17
Ghana	13	3	16
Hong Kong	15	7	22
India	17	61	78
Kenya	9	1	10
New Zealand	1	9	10
Nigeria	75	21	96
Pakistan	7	24	31
Rhodesia & Nyasaland	7	5	12
20 Other Countries	43	17	60
OTHER PARTS OF THE WORLD			
Egypt	4	27	31
France	51	1	52
Germany	16	3	19
Greece	3	8	11
Iraq	3	11	14
Israel	5	6	11
Netherlands	8	3	11
Spain	3	7	10
South Africa	9	8	17
Sweden	11	–	11
U.S.A.	28	37	65
39 Other Countries	72	62	134
	2,766	1,099	3,865

SUMMARY

United Kingdom	3,034
British Commonwealth of Nations..	445
Other Parts of the World	386
	3,865

APPENDIX IX

APPLICATIONS AND ADMISSIONS
SESSION 1961–62

FIRST DEGREE AND FIRST DIPLOMA STUDENTS

FACULTY OF ARTS	*Applicants for Admission*	*Students Admitted October* 1961
B.A. Honours		
Anthropology	24	8
Dutch	1	1
English	559	41
French	537	31
Geography	167	25
German	205	20
Greek and Latin	115	15
Hebrew	5	4
History	429	34
Italian	11	4
Philosophy	31	10
Philosophy and Economics	26	4
Philosophy and Psychology	26	4
Psychology	58	13
Scandinavian Languages	8	5
	2,202	219
B.Sc.(Econ.)	838	48
University Diploma in Fine Art	421	57
B.A. Honours in Architecture		9
B.Sc. (Architecture) Degree	128	7
Diploma in Architecture		1
	128	17
FACULTY OF SCIENCE		
B.Sc.(Special)		
Anthropology	15	6
Astronomy	19	3
Biochemistry	79	16
Botany	95	11
Chemistry	718	48
Geography	156	18
Geology	133	9

	Applicants for Admission	*Students Admitted October* 1961
Mathematics	548	36
Physics	664	47
Physiology	35	12
Psychology..	106	15
Statistics	54	18
Zoology	272	13
	2,894	252

FACULTY OF LAWS

LL.B.	617	115

FACULTY OF ENGINEERING

B.Sc.(Eng.)		
Chemical Engineering	237	24
Civil and Municipal Engineering.. ..	328	24
Electrical Engineering	316	25
Mechanical Engineering	264	22
	1,145	95

FACULTY OF MEDICAL SCIENCES

2nd Examination for Medical Degrees ..	873	68
2nd Examination for Dental Degrees ..	265	25
	1,138	93
Totals	9,383	896

APPENDIX X

UNIVERSITY HONOURS

HIGHER DEGREES

FACULTY OF ARTS

Ph.D. *Anthropology:* V. Reynolds. *English:* Gillian M. Fellows. *French:* Penelope J. V. Bell, M. H. A. Blanc, Angela M. Broomfield. *Geography:* J. H. Johnson. *History:* F. X. Walker. *Philosophy:* M. I. Podro. *Experimental Phonetics:* V. Sadler. *Psychology:* Frances Glover, J. Walker. [11]

M.A. *English:* Marie St. V. Campbell, *R. G. Fowler. *General Linguistics and Phonetics:* Eleanor M. Higginbottom, J. C. Wells. *History:* Patricia M. Scholes, *J. R. Woodhead. *Philosophy:* S. Deb, N. Sivasambu. [8]

FACULTY OF ECONOMICS

M.Sc. B. Wickland. [1]

FACULTY OF LAWS

Ph.D. J. W. Groenewald, C. Ogwurike. [2]

LL.M. F. J. J. Cadwallader, W-L. Chan, S. M. Husain, G. L. Johnke, N. K. Kudjawu, G. Marston, K. H. Naorojee Bhagat, F. M. Obianyo, E. E. J. Okereke, V. S. Sikand. [10]

FACULTY OF SCIENCE

D.Sc. *Biochemistry:* G. A. Maw. *Physics:* M. J. Makin, L. Rotherham. [3]

Ph.D. *Anthropology:* D. Sen. *Biochemistry:* M. D. Lilly. *Biophysics:* D. H. Jenkinson. *Botany:* S. B. Chapman, B. J. Kilbey, Ma Khin Sein, Erica M. F. Swale. *Chemistry:* D. L. Alleston, M. Cox, T. A. Claxton, G. Doggett, A. C. Gilby, J. R. Gott, Ann V. Lennard, R. A. More O'Ferral, P. G. Naylor, B. Roberts, Y. V. Sathyabhama Devi, J. Sikora, F. G. Thorpe, *Genetics:* M. S. Grewal, A. M. O. Veale. *Geology:* F. T. Barr, H. O. A. Meyer, M. G. Paithankar. *History and Philosophy of Science:* C. A. Russell. *History of Pharmacology:* M. P. Earles. *Physics:* P. J. Chantry, A. Chong Yean Joo, A. K. Common, G. F. O. Langstroth, B. Pardoe, W. A. Towlson. *Physiology:* B. N. Davies, D. W. Grieve, D. R. Inman, D. Noble. *Psychology:* M. C. Courtis, N. Mrosovsky. *Zoology:* Louie Hamilton, Frances E. Oldfield, R. J. Woolton. [42]

M.Sc. *Biochemistry:* P. Holland. *History and Philosophy of Science:* F. H. Anstis, B. H. Cridland, †A. M. Duncan, P. R. Major. *Physics:* T. S. C. Carcas, R. R. Hilton, *Statistics:* B. Z. Mohamed. [8]

FACULTY OF ENGINEERING

D.Sc. (Eng.) *Chemical:* P. H. Calderbank. [1]

* Awarded a mark of distinction. † Also registered at another Institution.

Ph.D. *Chemical:* D. J. R. Hinton, C. R. Treleaven. *Civil:* L. E. Robinson, V. Pienvichitr. *Electrical:* H. J. O'Neill, P. Nacaskul, P. T. Saaler, Wong Ming Yap, I. E. Young. *Mechanical:* A. Y. Hassan, A. J. McLeod [11]

M.Sc. *Civil:* †P. V. Pawar. *Electrical:* H. M. Karaoghlanian. *Mechanical:* R. J. Brailey, B. K. Rigby. [4]

FACULTY OF MEDICINE

Ph.D. *Biochemistry:* E. R. Huehns. [1]

UNIVERSITY POSTGRADUATE STUDENTSHIPS

Anatomy: R. D. Lund. *Chemistry:* M. R. Philpott. *Economics:* J. F. Pickering; E. Rahim. *French:* B. Kite; Julia Woledge. *Geography:* B. R. Dittmer; J. W. Edwards. *Hebrew:* A. Rubin.

UNIVERSITY STUDENTSHIPS

Anthropology: Anne V. Akeroyd. *Botany:* G. I. Forrest. *Chemistry:* S. Doonan (Neil Arnott Studentship). *Classics:* M. A. Moore (1 Term). *Engineering:* L. J. Stagg. *Fine Art:* A. C. Donaldson. *German:* Ann J. Martin. *History:* R. L. Sims. *Laws:* C. M. Flesch.

OTHER AWARDS

Frida Mond Studentship (and Harmsworth Prize of books): Wendy Philipson. *William Lincoln Shelley Studentship:* C. H. Falkus. *Keddey Fletcher-Warr Studentship:* Stella Neale.

† Also registered at another Institution.

APPENDIX XI

COLLEGE AWARDS TO STUDENTS

I.—ENTRANCE SCHOLARSHIPS

Bartlett Exhibitions in Architecture.—N. Kadel, Royal Grammar School, High Wycombe; J. Storer, Long Eaton Grammar School.

Bucknill Scholarship (Medical Sciences).—R. A. Jones, Merthyr County Grammar School.

Campbell Clarke Scholarship in English Language and Literature.—Angela K. Fisher, Mexborough Grammar School.

Epsom Medical Scholarship.—D. J. G. Tasker, Epsom College.

Goldsmid Science Scholarship.—C. G. Wass, Hemsworth Grammar School, Nr Pontefract.

Hume-Lloyd Scholarship in Political Economy.—K. A. King, Downer County School, Edgware.

Librarianship and Archive Exhibitions.—J. Hackney, Wadham College, Oxford; Monica A. Ory, University of Manchester.

Medical Exhibition.—Valerie H. Gibbs, Ewell County Technical College.

Rosa Morison Scholarship.—A. J. Walters, Queen Elizabeth Grammar School, Carmarthen.

Trevelyan Goodall Art Scholarship.—J. A. Fisher, University College School.

II.—OTHER SCHOLARSHIPS AND DISTINCTIONS

Anatomy Class Prizes.—Medical: Frances M. Marks. *Dental:* J. Atkins.

Anatomy and Physiology (B.Sc. Degree) Exhibitions.—Anatomy: J. A. Betts, A. R. Lieberman, D. T. Matthews. *Physiology:* G. D. J. Ponsford, C. D. Reid, A. E. Smith, R. J. G. Soper, P. A. Southorn.

Anatomy and Physiology (B.Sc. Degree) Scholarships.—Anatomy: Frances M. Marks, A. N. Prathalingam. *Physiology:* I. M. Jaye, Y. K. Lee.

Andrews Postgraduate Scholarship in Arts.—Janine D. Bourriau.

Andrews Postgraduate Scholarship in Classics.—J. H. Betts.

Herbert Batsford Prize (Architecture).—Prudence Withrington.

Francis Perch Bedford Prize (Zoology).—C. J. Fielding.

Ada Heather Bigg Prize (Political Economy).—M. A. Collins and Thelma Seward, prize equally divided.

Bonney Prize (Geology).—C. W. M. Claxton.

Alfred Bossom Atelier Prizes.—English Architecture: R. H. Pollard. *Contemporary Architecture:* M. E. Finbow.

Alfred Bossom Prize in Domestic Architecture.—J. E. Fraser, J. M. Knight, B. B. Nutt and D. C. Pearson, prize equally divided.

Mary Brodrick Prize (Geography).—R. U. Cooke.

'The Builder' Prizes (Architecture).—Measured Drawings (for work done in the Long Vacation 1961).—*Junior:* K. Crowhurst.

Carey Foster Research Prize (*Physics*).—B. G. Duff.

The Chadwick Medal and Prize (*Civil Engineering*).—M. H. R. Godley.

Churchill-Jenkinson Prize (*Archive Administration*).—C. A. McLaren.

Antonio Cippico Prize (*Italian*).—Virginia H. Nagelschmidt and Judith Potter, prize equally divided.

Lilian Clarke Prize (*Botany*).—G. I. Forrest.

Clinton Prize (*Electrical Engineering*).—D. C. A. Connolly.

Corte Studentship in Mathematics.—J. St. C. L. Sinnadurai.

Cowley Prizes.—Archive Administration: D. Huws and Frances A. Ratcliffe, prize equally divided. *Librarianship:* A. A. Halim; P. B. Jones.

Dawes Hicks Postgraduate Scholarship in Philosophy.—D. J. Duthie.

Dolley Memorial Prize (*Modern European History*).—P. W. Enticott.

Donaldson Medal (*Architecture*).—M. W. A. Cassidy.

Early English Text Society's Prize.—D. Crystal.

Esso Postgraduate Studentship in Chemical Engineering.—A. P. Carroll.

Studentships in Film.—Mary V. Carver; Michèle Goulin.

Richard FitzGerald Prize (*Laws*).—I. M. Kennedy.

Sir Banister Fletcher Prize (*Architecture*).—M. W. A. Cassidy, L. M. Hellman and R. C. Moore, prize equally divided.

Foyle Prize (*Latin*).—I. R. L. George.

Stephen Glanville Memorial Scholarship (*Egyptology*).—R. S. Merrillees.

Edith Goodyear Prize (*Geology*).—M. A. Woollands.

Archibald P. Head Memorial Medal and Prize (*Mechanical Engineering*).—J. L. Innocent.

Heimann Medal (*German*).—Rachel M. Osbiston.

Elsie Hitchcock Prize (*English*).—T. Wright.

Hollier Scholarship in Greek.—J. R. Green.

Hollier Scholarship in Hebrew.—G. S. Gibson.

R. B. Hounsfield Prize in Traffic Engineering.—D. T. Plinston.

R. B. Hounsfield Prize in Town Planning and Civic Engineering.—G. H. Setchell.

Hurst Prize in English Law.—I. M. Kennedy.

Jews' Commemoration Scholarship.—M. H. Gotheridge.

Jolowicz Prize (*Roman Law*).—K. D. Cooper.

Ker Memorial Prize (*English Language and Literature*).—Jennifer M. Pierson and B. D. Zander, prize equally divided.

Postgraduate Scholarship in Laws.—B. J. Wright.

Bunnell Lewis Prizes for Latin Verse.—H. A. P. Picarda; R. A. G. Clark, moiety.

Lloyd Scholarship in Modern Greek.—G. M. Sifakis.

Sir John MacAlister Medal (*Librarianship*).—J. H. St. J. McIlwaine.

Malden Scholarship (*Greek*).—R. Crowhurst.

Sir William Meyer Prize (*Geography*).—A. H. Dawson and G. E. Hallas, prize equally divided.

Sir William Meyer Prize (*History*).—O. K. Bentley.

Sir William Meyer Travelling Studentships (*History*).—K. W. W. Aikin; R. W. Ambler; A. J. Dures; W. R. Stewart.

John Stuart Mill Scholarship in Philosophy of Mind and Logic.—D. J. Duthie.

Momber Scholarship in Physics.—B. S. Luetchford.

Momber Scholarship in Science.—J. E. Guest.

Rosa Morison Memorial Medal (*Arts*).—Anne V. Akeroyd.

Rosa Morison Prizes.—Anthropology: M. J. Kuhn. *French:* Mary A. M. Ceresole. *Philosophy:* D. T. R. Polden.

Rosa Morison Postgraduate Scholarship in Arts.—Jeanne Masoero.

Rosa Morison Scholarship in English Language and Literature.—Judith A. Godfrey.

Morley Medal (*Modern English Literature*).—O. Knowles.

Douglas Murray Scholarship in Egyptology.—G. T. Martin.

Melvill Nettleship Prize for Figure Composition.—A. C. Donaldson and P. G. Procktor, prize equally divided.

Parry Prize (*Geography*).—H. D. Foster.

Catherine Maude Pearce Scholarship for Senior Women Students.—Jessie A. Semple.

Flinders Petrie Scholarship in Egyptian Archaeology.—A. J. Mills.

Physiology Prizes.—Medical: A. R. Lieberman. *Dental:* A. J. Darwood.

Platt Prizes (*Greek*).—J. B. P. J. Hadfield; D. J. Matthews.

Pollard Prize (*History*).—B. H. Abbott.

Postgate Prize (*Classical Philology*).—C. D. Moore.

Quain Studentship in Biology.—J. W. Cowan.

Ramsay Memorial Medal (*Chemistry*).—S. C. Chan.

Ricardo Scholarship (*Political Economy*).—E. Rahim.

Mary Rischgitz Prize (*Fine Art*).—J. H. McFaul, S. F. McKenna and C. J. Paice, prize equally divided.

Graham Robertson Travelling Scholarships.—A. K. Henderson; Jeanne Masoero.

Robert Ross Scholarships in Fine Art.—N. L. Roberts; L. C. Prosser.

Hester Rothschild Scholarship in Hebrew.—G. S. Gibson.

L. M. Rothschild Scholarship in French.—Joanna Rogers.

Schafer Prize in Physiology.—R. D. Harkness.

Sharpey Physiological Scholarship.—R. C. Woledge.

Slade Prizes.—T. H. Atkinson; P. J. R. Green; R. L. Smith.

Slade Scholarships.—A. Gingell; Jeanne Masoero; C. J. Paice; J. H. Wonnacott.

Stanbury Scholarship in Stage Design.—Moira Tait.

Steer Prizes (*Fine Art*).—*First Prize:* J. H. Wonnacott. *Second Prizes:* J. E. Keys; B. Mason.

Suckling Memorial Prize (*Practical Anatomy*).—D. T. Matthews.

Sir Andrew Taylor Prize in Fine Art.—P. C. Gaisford.

Taylor Woodrow Travelling Scholarship (*Civil Engineering*).—L. N. Swali.

Henry Tonks Prize (*Fine Art*).—Jeanne Masoero.
Troughton Scholarship.—W. L. Chan.
L. F. Vernon-Harcourt Prize (*Civil Engineering*).—B. G. B. Brent.
Ellen Watson Memorial Scholarship in Applied Mathematics.—R. R. McLone.
The Audrey Wykeham Prize (*Fine Art*).—A. R. Welsford.

APPENDIX XII

EXAMINATION RESULTS

FACULTY OF ARTS

B.A. (Honours)	*1st Class*	*2nd Class* *Upper Div.*	*2nd Class* *Lower Div.*	*3rd Class*	*Total*
Anthropology	1	3	1	—	5
Classics	2	4	4	2	12
Dutch	1	—	—	—	1
English	3	15	10	9	37
French	5	8	4	6	23
Geography	1	14	11	1	27
German	1	6	7	4	18
Greek	—	—	1	—	1
Hebrew	—	1	1	—	2
History	3	11	15	—	29
Italian	—	1	2	2	5
Latin	—	—	—	1	1
Mathematics	—	—	—	1	1
Philosophy and Economics	—	—	1	2	3
Philosophy	2	5	3	—	10
Psychology	2	1	4	2	9
Scandinavian Languages	—	—	—	4	4
	21	69	64	34	188

	Pass	*Total*
B.A. Aegrotat	1	1

	1st Class Honours	*2nd Class Honours*	*3rd Class Honours*	*Total*
B.A. Architecture	1	3	4	8

FACULTY OF ECONOMICS

	1st Class Honours	*2nd Class Honours* *Upper Div.*	*2nd Class Honours* *Lower Div.*	*Pass*	*Total*
B.Sc. (Economics)	2	*10	‡26	†7	43

*Includes one student also registered at another Institution; †includes two such students; ‡includes three such students.

FACULTY OF LAWS

	1st Class Honours	2nd Class Honours Upper Div.	2nd Class Honours Lower Div.	Pass	Total
LL.B.	3	20	40	18	81

FACULTY OF SCIENCE

B.Sc. (Special)	1st Class Honours	2nd Class Honours Upper Div.	2nd Class Honours Lower Div.	3rd Class Honours	Total
Anatomy	2	1	2	—	5
Anthropology	—	3	—	—	3
Astronomy	2	—	—	1	3
Biochemistry	1	3	5	2	11
Botany	3	2	*3	1	9
Chemistry	7	5	12	8	32
Geography	2	6	5	1	14
Geology	—	4	—	3	7
Mathematics	4	3	6	2	15
Physics	5	6	13	*10	34
Physiology	1	5	7	4	17
Psychology	—	2	1	1	4
Statistics	2	3	—	4	9
Zoology	4	1	—	3	8
	33	44	54	40	171

B.Sc. Degree	Pass	Total
Chemistry	5	5
Mathematics	3	3
	8	8

FACULTY OF ENGINEERING

	1st Class Honours	2nd Class Honours Upper Div.	2nd Class Honours Lower Div.	Pass Degree	Total
B.Sc. (Engineering)	6	12	9	8	35
B.Sc. (Engineering) Chemical Engineering	—	4	5		15

FACULTY OF MEDICINE

Second Examination for Medical Degrees: 66 students passed

* Includes one student also registered at another Institution.

APPENDIX XIII

BENEFACTIONS AND DONATIONS

The College Committee makes grateful acknowledgment of the following gifts:

Admiralty

(1) A grant not exceeding £29,747 for three years from 1 October 1961 for research in the Department of Electrical Engineering on vacuum electronics and semiconductors.

(2) A grant not exceeding £3,464 for one year from 1 October 1961 for upper atmospheric research in the Department of Physics.

(3) An additional grant not exceeding £150, with an extension of date from 7 January 1962 to 6 April 1962 for research in the Department of Electrical Engineering on wide band H.F. aerials.

Agricultural Research Council

(1) A grant not exceeding £961 for one year from 1 September 1961 for research in the Department of Chemistry on threonine dehydrase from sheep liver.

(2) A grant not exceeding £1,322 for one year from 1 January 1962 for research in the Department of Botany on the physiological role and metabolism of certain secondary nitrogenous substances in higher plants and micro-organisms.

Albright and Wilson Limited

A grant of £500 for one year from 1 October 1961 for a scholarship in the Department of Chemistry.

Anonymous

(1) A gift of £250,000 for the purpose of erecting a men's hall of residence.

(2) A grant of £234 13*s*. for research in the Department of Chemistry.

Association for the Aid of Crippled Children

A grant of $8,500 per annum for three years from 14 November 1961 for the Department of Eugenics, Biometry and Genetics in general support of work in the field of human genetics.

Asthma Research Council

A grant of £200 for the calendar year 1961 and a further grant of £200 for the calendar year 1962 for research in the Department of Pharmacology on problems of mechanism of anaphylaxis.

British Empire Cancer Campaign

(1) A grant not exceeding £1,794 for the calendar year 1962 for cancer research in the Department of Pharmacology.

(2) A grant not exceeding £1,166 for the calendar year 1962 for the chemical study in the Department of Chemical Engineering of lipid-protein complexes extractable from normal and cancerous human lungs.

(3) A grant of £823 for the calendar year 1962 for investigation in the Department of Biochemistry of the size, structure and enzyme activities of ribonucleoprotein particles from ascites tumour cells.

British Glues and Chemicals Limited

A grant of £400 for the academic year 1961–62 for a research studentship in the Department of Chemical Engineering.

British Iron and Steel Research Association

A grant not exceeding £1,018 10*s.* for approximately six months from 1 January 1962 for research in the Department of Civil and Municipal Engineering on stress concentrations under wheel loads.

British Titan Products Limited

An additional grant of £150 per annum for three years from 1 July 1961 for a postdoctoral research fellowship in the Department of Chemistry.

S. G. Brown

A bequest of £2,033 11*s.* 4*d.* to be applied in such manner as the Governing Body of the College shall think fit for the promotion and development of mechanical inventions.

Cambridge University Press

A grant of £250 per annum for five years from 1 April 1962 for the Department of English in support of research on English Usage.

Cement and Concrete Association

A grant of £250 for one year from 1 October 1961 for research in the Department of Civil and Municipal Engineering in concrete technology.

Central Electricity Generating Board

A grant of £540 for one year from 1 October 1961 for research in the Department of Electrical Engineering on semi-conductor wattmeters.

Lt. Col. B. E. Coke

A gift of £2,000 for the Department of Scandinavian Studies for the establishment of a Dorothea Coke Memorial Lecture in Northern Studies.

Commonwealth Fund

A grant of $1,500 per annum for two years for the Department of History for the institution of a seminar in American History.

Danish Government

A grant of £75 for 1960–61, being a contribution towards providing the allowance payable to a visiting Professor of Scandinavian Studies.

Department of Scientific and Industrial Research

(1) An additional grant of £10,450 for the period 1 December 1959 to 31 March 1963 and a further additional grant of £23,000 for three years from 1 April 1960. for a space research programme in the Department of Physics.

(2) An additional grant of £5,500 for three years from 1 October 1960 for investigation in the Department of Physics of inelastic ionic collisions, and a further additional grant of £2,400 for three years from 1 October 1960 for an investigation of inelastic ionic collisions and ion-photo collisions.

(3) An additional grant of £407 8*s*. 8*d*. for one year from 1 November 1960 and a further grant of £1,200 for one year from 1 November 1961 for research in the Department of Civil and Municipal Engineering on the effect of waves on beaches.

(4) An additional grant of £1,100 for three years from 1 January 1961 for research in the Department of Physics into the few nucleon problem, non-local potentials and their application to nuclear scattering problems.

(5) An additional grant of £485 for seven years and seven months from 1 January 1961 for diffraction studies in the Department of Chemistry of molecular vibrations in crystals.

(6) An additional grant of £60 for three years from 1 January 1961 for investigation in the Department of Phonetics into the influence of language forms on educability, modes of communication and social relationships.

(7) A grant of £1,088 for the period 1 May 1961 to 30 June 1962 for research in the Department of Civil and Municipal Engineering to develop a technique for measuring current velocities in large bodies of water, such as river estuaries, by means of photogrammetry.

(8) An additional grant of £4,938 for three years from 30 June 1961 for structural and geomorphological studies by the Department of Geology in Northern Chile.

(9) A grant not exceeding £6,550 for one year and three months from 1 July 1961 for analysis of rocket and satellite data and associated theoretical studies in the Department of Physics.

(10) An additional grant of £1,100 with extended date from 30 September 1961 to 30 November 1961 for the Department of Physics, for collaboration with the University of California in research on the Stopped K-Meson experiment.

(11) A grant not exceeding £2,954 for one year from 1 October 1961 for research in the Department of Mechanical Engineering on the whirling of shafts.

(12) A grant of £2,300 for two years from 1 October 1961 for experimental investigation in the Department of Physics of the behaviour of positronium in gases.

(13) A grant of £2,053 for one year from 1 October 1961 for research in the Department of Chemistry on high pressure X-ray and neutron diffraction.

(14) Grants of £1,775 for one year from 1 October 1960 and of £1,450 for one year from 1 October 1961 for investigation in the Department of Physics of the absorption spectrum of building materials.

(15) A grant of £1,000 for one year from 1 October 1961 for research in the Department of Photogrammetry and Surveying on the development of photogrammetric procedures as applied to the accuracy of buildings and components.

(16) A grant not exceeding £965 for one year from 1 October 1961 for research in the Department of Electrical Engineering on the propagation of surface radio-waves.

(17) A grant of £500 for one year from 1 October 1961 for research in the Department of Physics on the transport properties of atomic gases.

(18) A grant not exceeding £4,460 for two years from 1 April 1962 for research in the Department of Physics on the diffraction scattering of high energy protons and pions by protons.

(19) A grant not exceeding £800 for three months from 15 June 1962 for investigation in the Department of Geology of the Ostracoda from the English chalk.

(20) A grant not exceeding £2,886 for one year from 1 September 1962 for research in the Department of Physics on theoretical studies of atomic collisions.

(21) A grant not exceeding £3,156 for one year from 1 October 1962 for research in the Department of Mathematics into the theory of numbers and combinatorial analysis.

(22) An additional grant of £1,325 with an extension of date to 30 September 1962 for research in the Department of Civil and Municipal Engineering on stresses in arch dams of variable thickness.

(23) An additional grant of £2,770 with an extension of date to 30 September 1962 for research in the Department of Physics into pi-meson scattering and dispersion relations.

(24) An additional grant of £6,805 to 31 December 1962 for investigation in the Department of Physics involving measuring and data reduction concerned with bubble chamber photographs.

(25) An additional grant of £2,352 with extension of date to 31 December 1962 for research in the Department of Psychology into industrial training methods.

(26) An additional grant of £780 with an extension of date to 31 December 1962 for research in the Department of Chemistry into the mechanism of inorganic chemical substitution.

(27) An additional grant of £7,562 with an extension of date to 30 September 1964 for research in the Department of Physics into the interaction of high energy particles in nuclei and the properties of unstable particles produced in high energy interactions.

Diamond Corporation

A grant of £250 for one year from 1 October 1961 for research on diamonds in the Department of Chemistry.

E. I. Du Pont De Nemours and Company

A grant of $6,000 for one year from 1 March 1962 for fundamental research in the Department of Chemistry on Tungsten and Molybdenum.

Esso Research Limited

Two grants of £300 each for the Department of Chemistry for expenses for computing services.

Fairey Engineering Limited

The long-term loan to the Department of Mechanical Engineering of an electro-hydraulic servo valve.

Ferranti Limited

A grant of £845 per annum for three years from 1 October 1961 for crystallographic programming (Atlas Computer) in the Department of Chemistry.

F. J. Gaster

A grant of £2,100 for the Library for calendaring and listing the Gaster Archive.

General Post Office

A grant not exceeding £3,330 for three years from 1 October 1961 for study in the Department of Electrical Engineering of the low-field losses in ferrites at microwave frequencies to assist in the development of materials for microwave systems.

Thomas P. Headland Limited

A gift to the Department of Mechanical Engineering of a machine tool 'Senior' MI Miller.

Hilger and Watts Limited

A grant of £600 for the calendar year 1962 for the Department of Photogrammetry and Surveying, for a research studentship in Photogrammetry.

The Hispanic and Luso-Brazilian Council

A grant of £50 per annum for the years 1960–61 and 1961–62 for the Department of History for the Latin American History Library.

Home Office

Grants of £3,000 and £2,000 for one year from 1 April 1961 and a further grant of £5,000 for one year from 1 April 1962 for research in the Department of Psychology on recidivism of young offenders.

Hooker Chemical Corporation

A grant of $4,200 for research in the Department of Chemistry on the reactivity of co-ordinated ligands and certain potential inorganic polymers.

Imperial Chemical Industries Limited

(1) A grant of £264 for the Department of Chemical Engineering towards the cost of a Zeiss Diffusion Interferometer.

(2) An unrestricted grant of £30 to the Department of Chemistry for use in connection with research work.

Institution of Civil Engineers

A grant of £1,000 for one year from 1 October 1961 for research in the Department of Civil and Municipal Engineering on arch dams.

Lalor Foundation

A grant of $10,000 for eighteen months from 1 September 1962 for research in the Department of Anatomy and Embryology in amino acid uptake into proteins of animal oöcytes and embryos.

Leverhulme Trust Fund

(1) A grant of £5,300 for five years for the Department of Political Economy for a lectureship in Latin American Political Economy studies.

(2) A grant not exceeding £5,100 for three years for a Leverhulme Canadian Painting Scholarship in the Department of Fine Arts.

(3) A grant of £400 for the Department of Political Economy for travelling expenses of a member of staff who attended Hong Kong University Centenary Conference in September 1961.

Longmans Green and Company Limited

A grant of £1,500 per annum for five years for the expenses of the Communication Research Centre.

Lord Marks of Broughton

A gift of £100,000 towards the cost of a Central Collegiate Building.

May and Baker Limited

A grant of £200 for one year from 15 November 1961 for the Department of Pharmacology.

Medical Research Council

(1) An additional grant of £200 per annum for the period 1 September 1960 to 30 June 1962 for research in the Department of Phonetics on the nature of thinking as revealed through the speech process.

(2) A grant of £200 for the years 1960–61 and 1961–62 for expenses of research work in the Department of Pharmacology.

(3) A grant of £250 for one year from 1 April 1961 for research in the Department of Physiology on the mechanical, neural and endocrine factors controlling the eruption of teeth.

(4) A grant of £450 per annum for one year from 31 July 1961 for the Department of Physiology for technical assistance for work on central control of muscle spindles.

(5) A grant not exceeding £200 for one year from 18 September 1961 for research expenses in the Department of Biochemistry.

(6) A grant not exceeding £930 for one year from 21 September 1961 for study in the Student Health Centre of the prevalence of mental ill-health in a population of University students.

(7) A grant of £350 for one year from 21 September 1961 and an additional grant of £31 for one year from 21 October 1961 for study in the Department of Physiology of the processes of the continuous eruption of the mandibular incisors.

(8) A grant of £1,200 for one year from 1 October 1961 for study in the Department of Pharmacology of delayed allergic reactions, with special reference to the role of cell-bound antibodies in autosensitisation.

(9) A grant of £925 for one year from 1 October 1961 for research in the Department of Psychology on Inductive and Deductive Thinking.

(10) A grant of £860 for one year from 1 October 1961 for study in the Department of Biochemistry of the relationship of the acid-soluble ribonucleotides and the nucleic acids of the mammary gland to the synthesis of milk and, in particular, casein.

(11) Grants of £900 per annum for scientific assistance and not exceeding £615 for special apparatus for one year from 1 October 1961 for the Department of Physiology for work on the action of phospholipases on nerve and muscle resting and action potentials and on neuromuscular transmission.

(12) A grant of £800 for one year from 1 October 1961 for research in the Department of Zoology on the physiology of ageing in drosophila.

(13) A grant of £750 for one year from 28 November 1961 for research in the Department of Anatomy and Embryology on cell behaviour in wound repair.

(14) A grant of £800 per annum from 1 January 1962 for study in the Department of Eugenics, Biometry and Genetics of chromosomal translocations.

(15) A grant of £800 per annum plus superannuation for eight months from 1 February 1962 for investigation in the Department of Biochemistry of the induced system for the transport of organic acids into cells of pseudomonas.

(16) A grant of £275 per annum from 7 March 1962 for study in the Department of Anthropology of the human karyotype in various populations.

(17) A grant not exceeding £1,400 for one year from approximately September 1962 for study in the Department of Physiology of the mechanism of formation and drainage of the cerebrospinal fluid.

(18) A grant of £2,187 for one year from 1 January 1964 for investigation in the Department of Physiology into the transmission of information about external stimuli in primary and second order receptos neurones.

(19) A grant not exceeding £40,000 for the Department of Eugenics, Biometry and Genetics towards the provision of accommodation, fittings and furnishing at 2–10 Euston Buildings and 8–10 Regnart Buildings.

Ministry of Aviation

(1) Grants of £2,779 and £68 for one year from 1 February 1961 and a further grant not exceeding £2,515 for one year from 1 February 1962 for investigation in the Department of Mechanical Engineering of forced resonant vibration of aircraft structures.

(2) A grant not exceeding £1,720 for one year from 1 May 1961 for Quantum Electronics in the Department of Physics.

(3) A grant not exceeding £2,660 for one year from 1 October 1961 for the measurement by the Department of Physics of electron attachment co-efficients in low pressure gases.

(4) A grant not exceeding £2,063 with an extension of date from 1 October 1961 to 30 September 1962 for investigation in the Department of Mechanical Engineering of aspects of the behaviour of flame traps.

(5) A grant not exceeding £1,089 for one year from 1 October 1961 for research in the Department of Chemistry on the bonding properties of the inorganic elements suitable for use in inorganic polymers.

(6) A grant not exceeding £1,000 for one year from 1 October 1961 for research in the Department of Electrical Engineering into the dielectric properties of polycrystalline photo-conductive film in micro-wave fields.

(7) A grant not exceeding £2,900 for one year from 1 December 1961 for the Department of Electrical Engineering for the measurement at centimetre wave-lengths of surface currents on conducting objects in an incident plane electromagnetic field.

(8) A grant not exceeding £1,725 for one year from 13 March 1962 for research in the Department of Electrical Engineering on the application of Hall effect to the measurement of high power density electromagnetic waves in free space.

Ministry of Supply

An additional grant of £2,426 with an extension of date to 30 September 1962 for research in the Department of Phonetics in sound coded speech.

Muscular Dystrophy Group

A grant of £500 for expenses in connection with research in muscular dystrophy in the Department of Eugenics, Biometry and Genetics.

The National Foundation

(1) A grant not exceeding $1,125 for the period 1 March 1961 to 30 November 1961 for a postdoctoral research fellowship in the Department of Chemistry.

(2) A grant not exceeding $1,125 for nine months from 1 December 1961 for a postdoctoral research fellowship in the Department of Physiology.

National Institute for Research in Nuclear Science

(1) A grant not exceeding £1,800 for one year from 1 November 1961 for investigation in the Department of Physics of a track chamber.

(2) An additional grant of £400 with an extension of date for one year from 1 January 1962 for experiments in the Department of Physics with a proton linear accelerator.

(3) A grant not exceeding £5,050 for one year from 1 February 1962 for the construction of a digitised microscope by the Department of Physics.

National Institutes of Health

(1) A grant of $500 for one year from 1 July 1960 for research in the Department of Pharmacology on the effect of the removal of enteric plexuses on peristalsis.

(2) A grant of $500 for one year from 1 September 1960 for investigation in the Department of Biophysics of properties of muscle.

(3) A grant of $500 for one year from 1 March 1961 for segregation in asci of Neurospora Grassa in the Department of Botany.

(4) A grant of $500 for one year from 2 July 1961 for a postdoctoral research fellowship in the Galton Laboratory.

(5) A grant of $500 for one year from 18 September 1961 for a fellowship supply grant in the Department of Physiology.

(6) A grant of $500 for one year from 25 September 1961 for a postdoctoral research fellowship in the Department of Eugenics, Biometry and Genetics.

(7) A grant of $4,598 for nineteen months from 1 November 1961 for research in the Department of Biochemistry on growth hormone and lipid metabolism.

(8) A grant of $24,766 for one year from 1 December 1961 for investigation in the Department of Phonetics of the effect of drugs on speech production.

(9) A grant of $23,507 for the calendar year 1962 for the Departments of Psychology and Pharmacology for Psychopharmacology of learning, perception and skill.

(10) A grant of $3,450 for three months from 1 March 1962 for research in the Department of Anatomy and Embryology on the role of the Corpus callosum in brain physiology.

(11) A grant of $20,912 for one year from 1 April 1962 for research in the Department of Pharmacology on psychotropic drugs and autonomic dysfunction.

(12) A grant of $13,311 for one year from 1 May 1962 for research in the Department of Anatomy and Embryology on the control of cell locomotion in relation to malignancy.

(13) A grant of $9,983 for one year from 1 June 1962 for research in the Department of Zoology and Comparative Anatomy on behaviour interaction and ageing in saturniid moths.

National Science Foundation

A grant of $200 for postdoctoral fellowship expenses in the Department of Physics.

Nature Conservancy

(1) A grant of £360 for three years from 1 April 1962 for study in the Department of Geography of the physiography of Poole Harbour.

(2) A grant of £978 for one year from 1 May 1962 for the development in the Department of Photogrammetry and Surveying of photogrammetric techniques and apparatus for low-level and sub-aerial photography of research sites in Snowdonia.

Naturmetodens Sproginstitut of Denmark

A grant of £200 for a Survey of English Usage by the Department of English.

Norwegian Government

A grant of £75 for the year 1961–62 for the Department of Scandinavian Studies towards the allowance payable to a Visiting Professor of Scandinavian Studies.

Nuffield Foundation

(1) An additional grant of £45 1*s.* 0*d.* for one year from 1 August 1960 and a grant of £1,500 for one year from 1 August 1961 for the Department of Botany for the maintenance of the Nuffield Botanic Research Garden.

(2) A grant of £30,000 for three years from April 1962 for the Centre for Urban Studies in support of the Third Survey of London Life and Labour.

(3) A grant of £2,000 for two years from 1 June 1962 for research in the Department of Zoology and Comparative Anatomy on ageing in drosophila.

(4) An additional grant of £8,500 for an analogue computer and cerebral mechanisms in the Department of Anatomy and Embryology.

Parke Davis and Company

A grant of £600 for one year from 1 October 1961 for research in the Department of Physiology on inflammation peptides and related topics.

Constance E. Pilkington (Trustees)

A gift of £750 to provide grants for students in the Slade School of Fine Art over ten years.

Pfizer Limited

A grant of £600 for one year from 1 October 1961 for research in the Department of Chemical Engineering covering multi-stage continuous fermentation.

T. F. Reddaway

A gift of £1,000 to establish a trust fund to be known as the Reddaway Benevolent Fund, to be used at the discretion of the Provost to assist members of College staff and their dependants, and students of the College, in cases of special need which could not otherwise be met.

Resources for the Future, Inc.

A grant of $10,340 for one year from 1 September 1962 for research in the Department of Town Planning on cost-benefit analysis in urban problems.

Royal Geographical Society

A grant of £50 for the year 1962 for a research expedition by the Department of Geology to Northern Chile.

Royal Society

(1) A grant of £3,125 for three years from 1 October 1959 for a Stothert Research Fellowship in the Department of Pharmacology.

(2) A grant of £1,058 for the year 1961 for research in the Department of Botany on the separation of biologically active proteins.

(3) A grant of £1,850 for one year from 1 October 1961 for a Locke Research Fellowship in the Department of Anatomy and Embryology.

(4) A grant of £1,025 for one year from 1 October 1961 for research in the Department of Physics on the excitation of atmospheric gases by high speed protons.

(5) A grant of £800 for the Department of Anatomy and Embryology for equipment for studies of neural degeneration in the thalamocortical projections and other fibre systems.

R. J. Sainsbury Discretionary Settlement

An additional grant of £1,500 less tax for the Department of Fine Arts for the benefit of young sculptors on completion of their training.

Harold Samuel

A gift of £100,000 to constitute the Harold Samuel Capital Fund to be used at the discretion of the College Committee.

Shell International Research Maatschappij (Amsterdam)

A grant of £500 per annum for three years from 1962 to 1964 for the Department of Chemistry in general support for research work under the direction of Professor Nyholm.

J. Stone and Company (Deptford) Limited

A grant of £250, being a donation to be placed at the disposal of the Department of Mechanical Engineering.

Treasury Development Commission

A grant not exceeding £800 for one year from 1 October 1961 for study in the Department of Botany of the production of extracellular substances by algae.

United Kingdom Atomic Energy Authority

(1) An additional grant of £8,550 for five years from 1 October 1960 for research in the Department of Physics on the detection of vacuum ultra-violet radiation.

(2) A grant not exceeding £5,250 for three years from 1 September 1961 for research in the Department of Electrical Engineering on thermionic aspects of direct conversion of heat to electricity.

(3) A grant not exceeding £3,000 for the period 1 October 1961 to 31 August 1963 for the Department of Civil and Municipal Engineering, to determine the relationship between the deviation from the spherical shape and the permissible buckling stress.

(4) A grant not exceeding £700 for three months from approximately 1 November 1961 for the Department of Civil and Municipal Engineering for a photoelastic stress analysis of a reaction vessel.

United States Air Force

(1) A grant of $9,310 for one year from 1 October 1961 for research in the Department of Physics in high energy physics and related topics.

(2) An additional grant of $4,500 for an extended period from 31 October 1961 to 31 January 1962 for studies in the Department of Phonetics in the improvement of accuracy and reliability of speech analyser systems.

(3) A grant of $20,000 for one year from approximately 1 November 1961 for electrophysiological studies in the Department of Anatomy and Embryology on the octopus.

(4) A grant not exceeding $28,800 for approximately three years from 1 December 1961 for research in the Department of Psychology on stochastic models and choice behaviour.

(5) A grant of $10,000 for one year from approximately 1 March 1962 for research in the Department of Phonetics on speech analyser systems.

(6) A grant of $8,504 for two years from 1 March 1962 for research in the Department of Chemistry on electron spin resonance spectra of metal complexes.

United States Army

A grant of $7,098 for one year from 1 November 1961 for research in the Department of Chemistry on radial distribution curve of electron density.

United States Navy

A grant of $9,305 for one year from 1 October 1961 for research in the Department of Physics in atomic processes.

United States Public Health Service

(1) A grant of $4,467 for four months from 1 April 1962 for research in the Department of Zoology on the nature of antigens responsible for homograft reaction.

(2) A grant of $10,120 for one year from 1 June 1962 for research in the Department of Eugenics, Biometry and Genetics on the mapping of human genes by cell culture.

(3) A grant of $3,450 for one year from 1 June 1962 for research in the Department of Anatomy and Embryology on the role of the corpus callosum in brain physiology.

University of Vermont

A grant of $500 for research expenses in the Department of Biochemistry.

Wellcome Trust

(1) A grant of £1,200 per annum for eight months from 1 December 1961 for a research fellowship in the Department of Anatomy and Embryology.

(2) A grant of £2,000 per annum with an extension of date for six months from 1 January 1962 for a research studentship in the Department of Eugenics, Biometry and Genetics.

(3) A grant of £40,000 to provide additional animal accommodation for departments in the Faculty of Medical Sciences.

W. Wittels

A gift of £600 for a prize to be awarded annually in the Slade School of Fine Art in memory of Mrs Audrey Wykeham.

Woods of Colchester Limited

The gift to the Department of Mechanical Engineering of an axial flow fan test unit.

Wyandotte Chemicals Corporation

A grant of $4,000 for the calendar year 1962 for investigation in the Department of Chemistry of the chemistry of certain nitrogen ligands.

John Wyeth and Brother Limited

A grant of £450 for one year from 1 October 1961 for a studentship in the Department of Pharmacology.

GIFTS TO THE LIBRARY

During the session the Library received several gifts of special interest from friends and associates of the College. Mr A. R. Bassani, son of the late Dr A. M. Bassani, fomerly a lecturer in Italian in the College, presented a collection of his father's letters and papers, and books from his library. In March 1962 the Library received from Lord Strang a valuable gift of books containing many fine examples of eighteenth century prints and engravings. Dr Ada Polak kindly donated some forty volumes, which included several useful additions to the Scandinavian and Fine Art collections. Finally, Mrs Joan Fieller generously presented a collection of books and papers from the library of her late husband, Edgar Fieller, formerly a member of the Department of Statistics. The collection is mainly of books on statistics and early mathematics and includes editions of works by Karl Pearson and Francis Galton.

APPENDIX XIV

COLLEGE ACCOUNTS 1961–62

The Balance Sheet and the Income and Expenditure Account for the year will be found on pages 102–5.

BALANCE SHEET

Features of special interest were:

LIABILITIES

The Capital Account increased by £780,417, representing the capitalisation of the value of new accommodation that came into use during the year (chiefly Stages I and II of the new Engineering Building). The acquisition of 4–10 Euston Buildings, for which a capital grant of £84,000 was made, is referred to under Assets—Leasehold Land and Buildings.

Unexpended Balances increased by £147,807, due to an increase of £36,000 arising from the expansion of research activities sponsored by outside grants, a donation of £66,500 from Mr Harold Samuel (the first instalment of a gift of £100,000 over seven years to accelerate capital development generally), and a donation of £50,000 (the first instalment of a gift of £250,000) by an anonymous donor towards a new Hall of Residence.

ASSETS

Freehold Land and Buildings increased by £685,996, mainly the cost of the new Engineering Building, Stages I and II.

Leasehold Land and Buildings included in the net increase of £80,578 the acquisition of the share capital of Premier Developments Ltd, and the benefits of a long lease and a building agreement which will enable the College to develop the site of 4–10 Euston Buildings and 8–9 Regnart Buildings.

Investments showed a net increase of £58,176, mainly accounted for by donations for future capital development projects.

Current Assets increased by £167,449, mainly due to a large balance of cash on current account.

TRUST FUNDS

The College holds endowments in the form of 179 separate trust funds with a total value of £1,044,308. Four new funds were instituted in the year. The funds yield a total income of £52,000 per annum.

INCOME AND EXPENDITURE

The Income and Expenditure account showed a surplus of £2,081, compared with a surplus of £1,007 for the previous year.

Income exceeded that of 1960–61 by £114,350, and included increases of grants from the Court of £57,500 for general purposes, £28,000 for upkeep of new buildings, and £17,750 for academic salary increases. Fees increased by £13,936, through an adjustment of composition fees and increases in student numbers.

Expenditure was £113,275 more than in 1960–61. The main features of this were £53,214 for academic activities, including £12,000 for salary revision, and £41,887 for maintenance of premises, including the cost of occupying new accommodation towards which the supplementary Court grant of £28,000 was received.

The percentages of income and expenditure under the main classifications in 1957–58 and 1961–62, the first and last years of the quinquennium, are shown in the following table:

EXPENDITURE	1957–58 %	1961–62 %	INCOME	1957–58 %	1961–62 %
Salaries and Pensions of Teaching Staff	49·2	48·6	Endowments ..	3·1	2·6
Departmental Expenses, incl. Library ..	24·1	23·4	Grants	84·7	86·2
Maintenance of Premises ..	14·2	16·4	Donations ..	0·5	1·1
Administration	7·7	7·6	Fees	10·4	9·0
Other	4·8	4·0	Other	1·3	1·1
	100·0	100·0		100·0	100·0

EXTRA-BUDGETARY ACTIVITIES

The College administers the finances of research projects supported from outside sources. At 31 July 1962 there were 200 such projects, as in 1960–61. Receipts of research grants rose from £267,829 in 1960–61 to £428,947 in 1961–62, and payments from £315,800 to £408,224.

CAPITAL GRANTS

Capital Grants made during the year 1961–62 were as follows:	£
Acquisition of 4–10 Euston Buildings and 8–9 Regnart Buildings NW1	84,000
Alterations to Medical Sciences Building, Stage I: Purchase of equipment for additional dental pre-clinical entry	1,859
Alterations to Medical Sciences Building, Stage II:	
Additional building work	1,312
Additional professional fees	155
Alterations to former Electrical Engineering Laboratory in Foster Court to provide accommodation for Department of Physics ..	3,000
Purchase of furniture	1,045
Alterations to Bartlett School of Architecture: Purchase of furniture and equipment	3,467
Biological Sciences Block, Stage IV:	
Increases in cost of materials	764
Increase in labour costs	675
Additional professional fees	173

	£
Biological Sciences Block, Stage V:	
Additional building work and increases in cost of labour and materials	25,086
Professional fees (including resident electrical engineer)	42,956
Construction of lavatory block and sewerage disposal installation at Sports Ground, Shenley: Building work	7,767
Conversion of 10 Hanover Terrace:	
Building work	4,000
Professional fees	541
Conversion of former Refectory Hut:	
Building work	6,385
Purchase of furniture	3,079
Engineering Building, Stage I:	
Increases in cost of labour and materials	4,290
Additional professional fees	514
Engineering Building, Stage II:	
Increases in cost of labour and materials	3,587
Additional professional fees	430
Engineering Building, Stage IV:	
Purchase of boiler for Department of Mechanical Engineering ..	3,100
Purchase of 10 Hanover Terrace: Professional and legal charges ..	278
Purchase of 14–18 Maple Street and 3 Hertford Place W1	12,000
Professional and legal charges	223
Purchase of 2 Euston Buildings and 10 Regnart Buildings NW1 ..	11,000
Proposed Central Collegiate Building: Construction of model ..	500
	£222,186

SCHOLARSHIPS AND PRIZES

Expenditure amounted to £19,591 6*s.* 3*d.* Awards were made as under:

	Undergraduate			*Postgraduate*		
	£	*s.*	*d.*	£	*s.*	*d.*
From Endowments	2,704	17	5	2,416	4	3
,, Donations and Subscriptions	1,642	18	6	8,006	0	9
,, General Income	1,946	6	11	1,919	2	5
,, General Income: Exhibition Bursaries and special fee remissions	306	16	0	649	0	0
	£6,600	18	10	£12,990	7	5

UNIVERSITY COLLEGE
BALANCE SHEET

31.7.61 £		£
7,563,635	CAPITAL ACCOUNT	8,344,052
50,024	REDEMPTION FUNDS	54,269
11,194	INCOME AND EXPENDITURE ACCOUNT	13,243
7,624,853		8,411,564
594,161	SUNDRY FUNDS	584,170
28,152	LOANS	40,408
228,040	UNEXPENDED BALANCES	375,847
151,290	CURRENT LIABILITIES	188,432
8,626,496		9,600,421
1,028,632	TRUST FUNDS	1,056,332
£9,655,128		£10,656,753

NOTE

The College freehold properties were revalued during 1959 on the basis of current land values and estimated building costs, by the College authorities with professional assistance from Quantity Surveyors. Accordingly these properties are stated at the 1959 valuation with subsequent additions at estimated cost. No value is included in capital account for furniture and equipment.

We have audited the above balance sheet and the annexed income and expenditure notes thereon, a true and fair view of the state of affairs of University College on that date: (*b*) moneys expended during the year out of non-recurrent grants for specific purposes have been properly applied to those purposes.

3 Frederick's Place, Old Jewry, London, E.C.2.
15th November 1962.

31.7.61 £		£	£
7,612,455	FREEHOLD LAND AND BUILDINGS—see note below ..		8,298,451
	LEASEHOLD LAND AND BUILDINGS, at cost	110,650	
	Less: Amortization to date	48,864	
		61,786	
66,208	*Add:* Purchase of Premier Developments Ltd ..	85,000	
	(This company is entitled to the benefit of a lease and building agreement in relation to land and premises known as 4–10 Euston Buildings and 8–9 Regnart		146,786
7,678,663	Buildings.)		8,445,237
94,090	CAPITAL AND OTHER WORKS IN PROGRESS *less* capital grants and other capital receipts		27,855
515,263	INVESTMENTS..		573,439
	(*Market Value of Stock Exchange Securities and other Investments at 31st July, 1962, £586,178: 31st July, 1961, £522,665.*)		
132,620	EXPENDITURE RECOVERABLE FROM FUTURE GRANTS ..		181,272
59,223	CAPITAL WORKS—Expenditure in respect of Suspended Works		58,532
146,637	CURRENT ASSETS including prepayments		314,086
8,626,496			9,600,421
1,028,632	TRUST FUNDS		1,056,332
£9,655,128			£10,656,753

account. In our opinion (*a*) the said accounts give, on the basis indicated in the London at 31st July, 1962, and of the income and expenditure for the year ended received from the University Court and other funds administered by the College

PRICE WATERHOUSE & CO.
Chartered Accountants

EXPENDITURE

1960–61 £			£	£
	ADMINISTRATION			
99,407	Salaries		108,863	
6,042	Superannuation		6,620	
33,644	Advertising, Printing, Stationery, Postage, and Telephone		37,689	
5,444	Other Expenses (including Professional Fees)		6,039	
(144,537)				159,211
	ACADEMIC DEPARTMENTS			
894,104	Salaries of Teaching Staff		930,936	
80,964	Superannuation		84,335	
243,287	Departmental Wages (including Superannuation)		255,411	
153,566	Departmental and Laboratory Maintenance		152,577	
75,903	Libraries		77,376	
3,642	Other Expenses		4,045	
(1,451,466)				1,504,680
	MAINTENANCE OF PREMISES			
37,525	Rates		54,605	
2,914	Insurance		3,883	
	Rent and other payments for use of buildings:			
7,766	Halls of Residence	7,766		
1,160	Other Buildings	1,718		
			9,484	
62,546	Heat, Light, Water and Power		73,196	
153,207	Repairs and Maintenance of Buildings including amounts set aside for long-term maintenance		160,613	
33,271	Wages of Porters and Attendants (including Superannuation)		37,944	
3,637	Other Expenses		4,188	
(302,026)				343,913
	GENERAL EDUCATIONAL			
133	Examiners' Fees		147	
15,072	Scholarships and Prizes		19,591	
931	Public Lectures		983	
2,000	Staff Attendance at Conferences		2,000	
409	Other Items		442	
(18,545)				23,163
	STUDENT FACILITIES AND AMENITIES			
24,930	Grant to Students' Union		25,500	
2,182	Salaries and Superannuation of Wardens of Halls of Residence		2,081	
1,500	Student Health Service		1,500	
2,665	Students' Purposes Fund		2,433	
180	Crabb Robinson Fund		239	
422	Ealing Hall Fund		328	
(31,879)				32,081
	MISCELLANEOUS			
11,334	Staff Pensions		11,629	
489	Grants from Benevolent Fund		834	
260	Grant from Bawden Fund		350	
3,337	Interest on Overdrafts, etc.		3,010	
4,713	Sundries		4,281	
	Deficits on Income and Expenditure Account for Halls of Residence, Refectories, etc.			
	Refectory:			
875	College Subvention	1,050		
4,436	Trading Loss written off	3,199		
308	*Non-Academic Staff Canteen*	—		
			4,249	
(25,752)				24,353
	CAPITAL EXPENDITURE MET FROM INCOME			
2,920	Gordon Street Frontage			3,000
1,977,125				2,090,401
1,007	Excess of Income over Expenditure for the year			2,081
£1,978,132				£2,092,482
100	Conservation Studies—Balance of grant reserved			32
319	*Eugenics & Statistics—Capital work abandoned*			—
11,194	Balance 31st July, 1962, carried to Balance Sheet			13,243
£11,613				£13,275

INCOME

1960–61 £		£	£
	ENDOWMENTS		
54,737	Income appropriated for purposes specified by Trust.. ..		55,047
	DONATIONS AND SUBSCRIPTIONS: Appropriated for:		
226	Special Purposes	199	
7,589	Scholarships and Bursaries	9,699	
10,122	Salaries and Superannuation	10,457	
4,453	Departmental and Laboratory Maintenance	2,340	
(22,390)			22,695
	GRANTS FROM UNIVERSITY COURT		
1,565,500	General	1,652,904	
134,572	Earmarked for Academic salary increases under 1960 Scheme	136,887	
—	Earmarked for Academic salary increases under 1962 Scheme	13,788	
(1,700,072)			1,803,579
	FEES		
171,546	General	184,948	
899	Examination and Registration	977	
500	Exhibition Bursaries and Special Remissions	956	
(172,945)			186,881
7,192	CONTRIBUTIONS FOR SERVICES RENDERED		7,131
	SURPLUS FROM INCOME AND EXPENDITURE ACCOUNTS FOR COLLEGE PROPERTIES, HALLS OF RESIDENCE, REFECTORIES, ETC.		
275	College Properties		373
20,521	OTHER ITEMS..		16,776

NOTES

1. In addition to the Income and Expenditure shown, sums totalling £408,224 were spent on Extra-budgetary activities for which grants have been or will be received from outside sources.
2. Expenditure shown in this account has been decreased by £13,701 representing a net decrease in unexpended balances of revenue grants from University Court.

£1,978,132		£2,092,482
10,606	Balance as at 1st August, 1961	11,194
1,007	Excess of Income over Expenditure for the year	2,081
£11,613		£13,275

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